Inventor Search

WHITE 09/955,864

=> D HIS

(FILE 'HOME' ENTERED AT 13:47:09 ON 03 DEC 2002)

FILE 'HCAPLUS' ENTERED AT 13:47:18 ON 03 DEC 2002
L1 47 S DOENGES R?/AU
L2 200 S KIRCHNER J?/AU
L3 246 S L1-2
L4 16 S L3 AND CELLULOS? ETHER
L5 3 S L4 AND ?SULFOALK? 3 cites
SELECT RN L5 1-3 selecting Reg #'s from L5

FILE 'REGISTRY' ENTERED AT 13:48:53 ON 03 DEC 2002
L6 14 S E1-14 14 cpds
L7 5 S L6 AND NC>2
L8 4 S L7 AND "CELLULOSE"

FILE 'HCAPLUS' ENTERED AT 13:51:20 ON 03 DEC 2002
L9 3 S L5 AND L6 3 citations w/ 14 cpds displayed

=> d ibib abs hitstr IND 1

L9 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:290646 HCAPLUS
DOCUMENT NUMBER: 132:323031
TITLE: Water-soluble hydrophobically modified **sulfoalkyl cellulose ethers**, process for making the same and their use in dispersion paints
INVENTOR(S): Donges, Reinhard; **Kirchner, Jurgen**
PATENT ASSIGNEE(S): Clariant G.m.b.H., Germany
SOURCE: Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 997478	A1	20000503	EP 1999-121342	19991026
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19849442	A1	20000504	DE 1998-19849442	19981027
US 6313287	B1	20011106	US 1999-427351	19991026
JP 2000204102	A2	20000725	JP 1999-305997	19991027

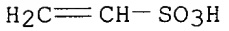
PRIORITY APPLN. INFO.: DE 1998-19849442 A 19981027

AB Polyalkoxylated hydroxyalkyl **cellulose ethers** having 0.001-1.0 alkyl groups and 0.01-0.1 **sulfoalkyl** groups per anhydroglucose unit, useful as thickeners for dispersion paints, are manufd. by reaction of polyalkoxylated hydroxyalkyl **cellulose ethers** with alkyl halides or alkyl glycidyl ethers and then sulfonation in the presence of a basic catalyst. A typical thickener was manufd. by reaction of cellulose pulp with ethylene oxide, reaction of the intermediate with Grilonit RV 1814 (C15-17-alkyl glycidyl ether), and sulfonated of the 2nd intermediate with Na vinylsulfonate.

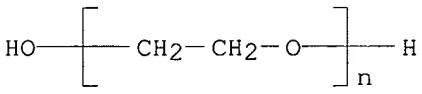
IT **266348-32-7**, Mowilith LDM 7712
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(paint; water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
RN 266348-32-7 HCAPLUS
CN Mowilith LDM 7712 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

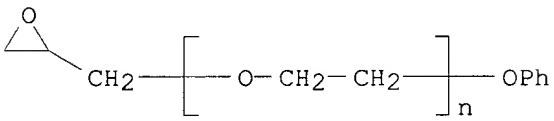
IT **3039-83-6DP**, Sodium vinylsulfonate, reaction products with adducts of alkyl glycidyl ethers and ethoxylated cellulose pulp **25322-68-3DP**, Polyethylene glycol, reaction products with cellulose pulp, alkyl glycidyl ethers, and sodium vinylsulfonate **54140-67-9DP**, Denacol EX-145, reaction products with ethoxylated cellulose pulp and sodium vinylsulfonate **86630-59-3DP**, Denacol EX-171, reaction products with ethoxylated cellulose pulp and sodium vinylsulfonate **138988-65-5DP**, Grilonit RV 1814, reaction products with ethoxylated cellulose pulp and sodium vinylsulfonate
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
RN 3039-83-6 HCAPLUS
CN Ethenesulfonic acid, sodium salt (8CI, 9CI) (CA INDEX NAME)



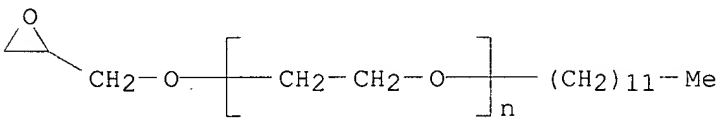
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 54140-67-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(oxiranylmethyl)-.omega.-phenoxy- (9CI) (CA INDEX NAME)



RN 86630-59-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-dodecyl-.omega.-(oxiranylmethoxy)- (9CI) (CA INDEX NAME)

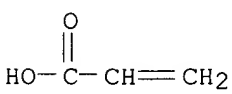


RN 138988-65-5 HCAPLUS
CN Grilonit RV 1814 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **79-10-7D**, Acrylic acid, esters, polymers
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)

RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (9CI) (CA INDEX NAME)



IC ICM C08B011-193

ICS C08B011-10
CC 42-5 (Coatings, Inks, and Related Products)
Section cross-reference(s): 43
ST polyoxyalkylene **cellulose ether** sulfonated alkylated thickener dispersion paint
IT Cellulose pulp
(ethoxylated, reaction products with alkyl glycidyl ether and sodium vinylsulfonate; water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
IT Ethers, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(glycidyl, alkyl, reaction products with polyoxyalkylated cellulose, sulfonated; water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
IT Paints
(latex; water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
IT Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reaction products with cellulose pulp, alkyl glycidyl ethers, and sodium vinylsulfonate; water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
IT Alkyl halides
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reaction products with polyoxyalkylated cellulose, sulfonated; water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
IT Thickening agents
(water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
IT **266348-32-7**, Mowilith LDM 7712
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(paint; water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
IT **3039-83-6DP**, Sodium vinylsulfonate, reaction products with adducts of alkyl glycidyl ethers and ethoxylated cellulose pulp
25322-68-3DP, Polyethylene glycol, reaction products with cellulose pulp, alkyl glycidyl ethers, and sodium vinylsulfonate
54140-67-9DP, Denacol EX-145, reaction products with ethoxylated cellulose pulp and sodium vinylsulfonate **86630-59-3DP**, Denacol EX-171, reaction products with ethoxylated cellulose pulp and sodium vinylsulfonate **138988-65-5DP**, Grilonit RV 1814, reaction products with ethoxylated cellulose pulp and sodium vinylsulfonate
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
IT **79-10-7D**, Acrylic acid, esters, polymers
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(water-sol. hydrophobically modified **sulfoalkyl cellulose ethers** for dispersion paint thickeners)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr IND 2

L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:289105 HCAPLUS
DOCUMENT NUMBER: 132:309900
TITLE: Preparation of hydrophobic **cellulose ethers** bearing **sulfoalkyl** groups for use as protective colloids in polymerization
INVENTOR(S): **Doenges, Reinhard**; Wurm, Horst
PATENT ASSIGNEE(S): Clariant G.m.b.H., Germany
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

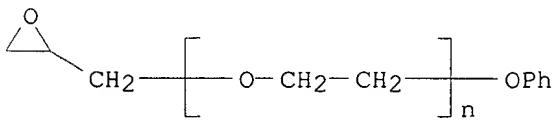
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19849441	A1	20000504	DE 1998-19849441	19981027
EP 1002804	A1	20000524	EP 1999-121343	19991026
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000204101	A2	20000725	JP 1999-305986	19991027

PRIORITY APPLN. INFO.: DE 1998-19849441 A 19981027

AB The title compds., which can be used in polymn. in decreased amts. to give polymer dispersions with good quality and processability, have degree of substitution (DS) 0.001-1, of which groups 0.01-0.1 are **sulfoalkyl** groups. Stirring cellulose 75.0, iso-PrOH 593, H2O 103.6, 49.5% NaOH 40.0, and ethylene oxide 90.0 g at 40.degree. for 1 h and 80.degree. for 1 h, adding 6.4 g alkyl glycidyl ether (Grilonite RV 1814), stirring at 80.degree. for 2 h, adding 28.3% aq. Na vinylsulfonate, and stirring for 2-3 h gave 123.1 g **cellulose ether** with DS of hydroxyethyl, hydrophobic, and sulfoethyl groups 2.49, 0.006, and 0.07, resp. Use of the products in aq. polymn. (e.g., of Veova 10 with vinyl acetate) is exemplified.

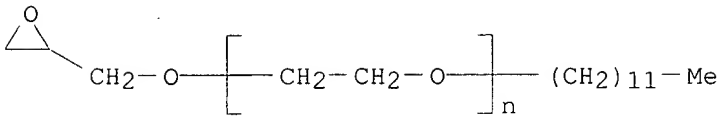
IT **54140-67-9DP**, Denacol EX 145, reaction products with hydroxyethyl sulfoethyl cellulose **86630-59-3DP**, Denacol EX 171, reaction products with hydroxyethyl sulfoethyl cellulose **113189-11-0DP**, reaction products with alkyl glycidyl ethers **113189-11-0P**, 2-Hydroxyethyl 2-sulfoethyl cellulose **138988-65-5DP**, Grilonit RV 1814, reaction products with hydroxyethyl sulfoethyl cellulose
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of hydrophobic **cellulose ethers** bearing **sulfoalkyl** groups for use as protective colloids in polymn.)

RN 54140-67-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(oxiranylmethyl)-.omega.-phenoxy- (9CI) (CA INDEX NAME)



RN 86630-59-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-dodecyl-.omega.-(oxiranylmethoxy)- (9CI)

(CA INDEX NAME)



RN 113189-11-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

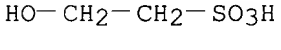
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

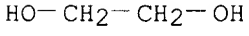
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 107-21-1
CMF C2 H6 O2



RN 113189-11-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

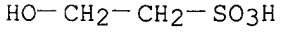
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

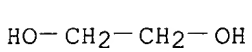
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



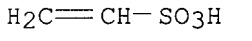
CM 3

CRN 107-21-1
CMF C2 H6 O2



RN 138988-65-5 HCAPLUS
CN Grilonit RV 1814 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **3039-83-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with cellulose)
RN 3039-83-6 HCAPLUS
CN Ethenesulfonic acid, sodium salt (8CI, 9CI) (CA INDEX NAME)



IT **9004-34-6**, Cellulose, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with epoxides and Na vinylsulfonate)
RN 9004-34-6 HCAPLUS
CN Cellulose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM C08B011-193
ICS C08B011-10; B01F017-52; C08B011-08
CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 35
ST cellulose **sulfoalkyl** ether prepn; sulfoethyl hydroxyethyl cellulose; glycidyl alkyl ether adduct cellulose; polymn aq protective colloid; protective colloid **sulfoalkyl** cellulose
IT Epoxides
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
((alkyloxy)methyl derivs., reaction products with hydroxyethyl sulfoethyl cellulose; prepn. of hydrophobic **cellulose ethers** bearing **sulfoalkyl** groups for use as protective colloids in polymn.)
IT Polymerization
(aq.; prepn. of hydrophobic **cellulose ethers** bearing **sulfoalkyl** groups for use as protective colloids in polymn.)
IT Colloids
(protective; prepn. of hydrophobic **cellulose ethers** bearing **sulfoalkyl** groups for use as protective colloids in polymn.)
IT **54140-67-9DP**, Denacol EX 145, reaction products with hydroxyethyl sulfoethyl cellulose **86630-59-3DP**, Denacol EX 171, reaction products with hydroxyethyl sulfoethyl cellulose **113189-11-0DP**, reaction products with alkyl glycidyl ethers **113189-11-0P**,

2-Hydroxyethyl 2-sulfoethyl cellulose **138988-65-5DP**, Grilonit RV 1814, reaction products with hydroxyethyl sulfoethyl cellulose
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of hydrophobic **cellulose ethers** bearing **sulfoalkyl** groups for use as protective colloids in polymn.)

IT **3039-83-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with cellulose)

IT **9004-34-6**, Cellulose, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with epoxides and Na vinylsulfonate)

=> d ibib abs hitstr IND 3

L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:658255 HCAPLUS
DOCUMENT NUMBER: 121:258255
TITLE: **Sulfoalkyl** group-containing alkyl hydroxyalkyl **cellulose ethers**, their preparation and use in building materials
INVENTOR(S): Bartz, Uwe; **Doenges, Reinhard**; Klehr, Heiner
PATENT ASSIGNEE(S): Hoechst A.-G., Germany
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

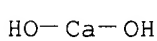
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 573852	A1	19931215	EP 1993-108579	19930527
EP 573852	B1	19971217		
R: AT, BE, CH, DE, ES, FR, IT, LI, NL, PT				
AT 161272	E	19980115	AT 1993-108579	19930527
CA 2097765	AA	19931207	CA 1993-2097765	19930604
AU 9340060	A1	19931209	AU 1993-40060	19930604
AU 661583	B2	19950727		
HU 64978	A2	19940328	HU 1993-1647	19930604
JP 06136001	A2	19940517	JP 1993-134907	19930604
IL 105911	A1	19970110	IL 1993-105911	19930604

PRIORITY APPLN. INFO.: DE 1992-4218738 19920606

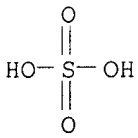
AB Alkyl hydroxyalkyl **cellulose ethers**, prepd. by etherification of cellulose in an alk. medium with an alkyl-, hydroxyalkyl-, and a **sulfoalkyl** group-contg. compd., can be used as constituents of building materials, e.g., mortar, based on Ca(OH)2, cement, or gypsum. Thus, the addn. .ltoreq.5% of ethers such as Me hydroxyethyl sulfoethyl cellulose, Me hydroxypropyl sulfoethyl cellulose, and Me sulfoethyl cellulose to building materials gave compns. having good consistency and water retention.

IT **1305-62-0**, Calcium hydroxide (Ca(OH)2), uses **13397-24-5**, Gypsum, uses
RL: USES (Uses)
(building materials based on, contg. alkyl hydroxyalkyl **sulfoalkyl cellulose ethers**)

RN 1305-62-0 HCAPLUS
CN Calcium hydroxide (Ca(OH)2) (9CI) (CA INDEX NAME)



RN 13397-24-5 HCAPLUS
CN Gypsum (Ca(SO4).2H2O) (9CI) (CA INDEX NAME)



Ca

2 H_2O

IT **147625-76-1P 158766-31-5P 158766-33-7P**
RL: PREP (Preparation)
(manuf. and use in building materials based on cement, gypsum or lime)
RN 147625-76-1 HCAPLUS
CN Cellulose, methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

CM 3

CRN 67-56-1
CMF C H4 O

H_3C-OH

RN 158766-31-5 HCAPLUS
CN Cellulose, 2-hydroxyethyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

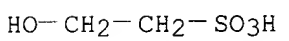
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

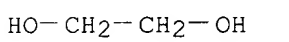
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 107-21-1
CMF C2 H6 O2



CM 4

CRN 67-56-1
CMF C H4 O

RN 158766-33-7 HCAPLUS
CN Cellulose, 2-hydroxypropyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

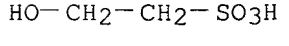
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

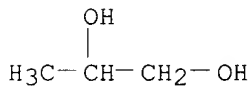


CM 3

CRN 67-56-1
CMF C H4 O

CM 4

CRN 57-55-6
CMF C3 H8 O2



IC ICM C08B011-193
ICS C08B011-10; C04B024-38
CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 58
ST alkyl hydroxyalkyl **sulfoalkyl** cellulose prepn; building material **sulfoalkyl cellulose ether**; cement **sulfoalkyl** cellulose building material; gypsum **sulfoalkyl** cellulose building material; lime **sulfoalkyl** cellulose building material; methyl hydroxyethyl sulfoethyl cellulose; hydroxypropyl methyl sulfoethyl cellulose
IT Building materials
(based on cement, gypsum or lime, contg. alkyl hydroxyalkyl **sulfoalkyl cellulose ethers**)
IT Cement
(building materials based on, contg. alkyl hydroxyalkyl **sulfoalkyl cellulose ethers**)
IT **1305-62-0**, Calcium hydroxide (Ca(OH)2), uses **13397-24-5**, Gypsum, uses
RL: USES (Uses)
(building materials based on, contg. alkyl hydroxyalkyl **sulfoalkyl cellulose ethers**)
IT **147625-76-1P 158766-31-5P 158766-33-7P**
RL: PREP (Preparation)
(manuf. and use in building materials based on cement, gypsum or lime)

```
=> d que 159
L1          47 SEA FILE=HCAPLUS ABB=ON   PLU=ON   DOENGES R?/AU
L2         200 SEA FILE=HCAPLUS ABB=ON   PLU=ON   KIRCHNER J?/AU
L3         246 SEA FILE=HCAPLUS ABB=ON   PLU=ON   (L1 OR L2)
L4          16 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L3 AND CELLULOS? ETHER
L5           3 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L4 AND ?SULFOALK?
L13       6242 SEA FILE=REGISTRY ABB=ON  PLU=ON   9004-34-6/CRN
L14        151 SEA FILE=REGISTRY ABB=ON  PLU=ON   L13 AND "SULFO"
L15        126 SEA FILE=REGISTRY ABB=ON  PLU=ON   L14 AND "ETHER"
L18        256 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L15
L20         26 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L18 AND (IONIC OR IONIZ? OR
               IONIS?)
L21         23 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L20 NOT (IONIC STRENGTH)
L22          4 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L18 AND ?ANHYDRO?
L27         81 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L18(L)PREP/RL
L30         49 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L27 AND ETHER?
L31          1 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L30 AND BASE
L32          3 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L30 AND CATAL?
L33          8 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L30 AND GLYCIDYL
L34          7 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L33 AND ?SULFONAT?
L35          5 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L33 AND (?SULFOALK? OR
               ?SULPHOALK?)
L36          0 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L33 AND ETH!NESULFONI?
L37          0 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L33 AND ETHENESULFONI?
L38          0 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L5 AND ETH!NESULF?
L39          0 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L33 AND ETHENESULFON?/OBI
L40          2 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L33 AND VINYLSUL?
L43       8927 SEA FILE=HCAPLUS ABB=ON   PLU=ON   EPOXIDES/CT
L44      51806 SEA FILE=HCAPLUS ABB=ON   PLU=ON   POLYOXYALKYLENES/CT
L46       8202 SEA FILE=HCAPLUS ABB=ON   PLU=ON   THICKENING AGENTS+OLD/CT
L47      14940 SEA FILE=HCAPLUS ABB=ON   PLU=ON   PAINTS+OLD/CT
L48     156970 SEA FILE=HCAPLUS ABB=ON   PLU=ON   COLLOIDS+OLD,NT/CT
L49      38962 SEA FILE=HCAPLUS ABB=ON   PLU=ON   EMULSIONS+NT/CT
L52          1 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L27 AND L43
L53          1 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L27 AND L44
L54         31 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L18 AND (L46 OR L47 OR L48 OR
               L49)
L56         49 SEA FILE=HCAPLUS ABB=ON   PLU=ON   (L30 OR L31 OR L32 OR L33 OR
               L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40)
L57          2 SEA FILE=HCAPLUS ABB=ON   PLU=ON   (L52 OR L53)
L58         49 SEA FILE=HCAPLUS ABB=ON   PLU=ON   (L56 OR L57)
L59          2 SEA FILE=HCAPLUS ABB=ON   PLU=ON   (L54 AND (L56 OR L57 OR L58))
               AND (L20 OR L21 OR L22)
```

inventor search

crn = component registry #

126 cites for → polymers

claimed properties I

related to preparation II

III application

2 cites w/ I, II & III

★ L13-15 is the STRUCTURE SEARCH:

9004-34-6 = cellulose

9004-34-6/crn finds all Registered mixtures (including polymers) of which cellulose is a component.

L14 & L15 pull out cellulose ethers with an SO_3 moiety

```
=> d que 161
L1          47 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DOENGES R?/AU
L2         200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KIRCHNER J?/AU
L3         246 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2)
L4          16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 AND CELLULOS? ETHER
L5           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 AND ?SULFOALK?
L13       6242 SEA FILE=REGISTRY ABB=ON  PLU=ON  9004-34-6/CRN
L14        151 SEA FILE=REGISTRY ABB=ON  PLU=ON  L13 AND "SULFO"
L15        126 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 AND "ETHER"
L18        256 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L15
L27         81 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L18(L)PREP/RL
L30         49 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND ETHER?
L31          1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L30 AND BASE
L32          3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L30 AND CATAL?
L33          8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L30 AND GLYCIDYL
L34          7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND ?SULFONAT?
L35          5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND (?SULFOALK? OR
                ?SULPHOALK?)
L36          0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND ETH!NESULFONI?
L37          0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND ETHENESULFONI?
L38          0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND ETH!NESULF?
L39          0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND ETHENESULFON?/OBI
L40          2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND VINYLSUL?
L43       8927 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EPOXIDES/CT
L44      51806 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYOXYALKYLENES/CT
L52          1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND L43
L53          1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND L44
L56         49 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L30 OR L31 OR L32 OR L33 OR
                L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40)
L57          2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L52 OR L53)
L58         49 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L56 OR L57)
L61         39 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L58 AND (?CELLULOS?(3A)ETHER?)
```

```
=> d que l55
L13          6242 SEA FILE=REGISTRY ABB=ON  PLU=ON  9004-34-6/CRN
L14           151 SEA FILE=REGISTRY ABB=ON  PLU=ON  L13 AND "SULFO"
L15           126 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 AND "ETHER"
L18           256 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L15
L19        194381 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (WATER OR H20)(5A)( DISSOLV?
                  OR ?SOLUBIL? OR MISCIB?) OR (WATER-SOLUB? OR H20-SOLUB?)
L20            26 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L18 AND  (IONIC OR IONIZ? OR
                  IONIS?)
L21            23 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20 NOT  (IONIC STRENGTH)
L22             4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L18 AND ?ANHYDRO?
L23            96 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L18 AND (?AQUEOUS? OR L19)
L25            12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L21 AND L23
L26             4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22 AND L23
L55            16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L25 OR L26)
```

=> d ibib abs hitstr 1-52

L63 ANSWER 1 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:422879 HCAPLUS
DOCUMENT NUMBER: 137:9814
TITLE: Cement-dispersing agent comprising polymer mixture for concrete
INVENTOR(S): Shiba, Daisuke; Sato, Haruyuki; Yamamuro, Hodaka
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002160954	A2	20020604	JP 2001-279162	20010914

PRIORITY APPLN. INFO.: JP 2000-280314 A 20000914

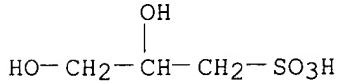
AB The agent contains (A) a mixt. of copolymers or their salt obtained by polymg. monomers including (a) .gtoreq.1 of R1R3C:CR2(CH2)m(CO)pO(AO)nX [R1-2 = H, Me; m = 0-2; R3 = H, COO(AO)nX; p = 0, 1; AO = C2-4 oxyalkylene or oxystyrene group; n = 2-300; X = H, C1-18 alkyl] and (b) .gtoreq.1 of R4R6C:CR5COOM1 [R4-6 = H, Me, (CH2)m1COOM2 (COOM2 may form anhydride with COOM1 or another COOM2); M1-2 = H, alkali metal, alk. earth metal, NH4, (substituted) alkylammonium; m1 = 0-2], where the mol. ratio of (a)/(b) is changed at least once during the polymn. and (B) water-sol. polymer. The agent stabilizes fluidity and segregation resistance of prehardened concrete.

IT **208471-51-6P**, Hydroxyethyl **cellulose** stearyl glyceryl **ether** 3-sulfo-2-hydroxypropyl **ether**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(cement-dispersing agent contg. acrylic polyoxyalkylene and water-sol. polymer)

RN 208471-51-6 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



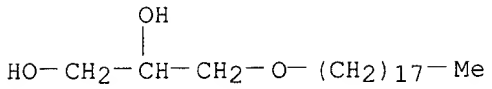
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

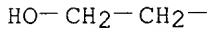
CM 3

CRN 544-62-7
CMF C21 H44 O3



CM 4

CRN 107-21-1
CMF C2 H6 O2



L63 ANSWER 2 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:114650 HCAPLUS
DOCUMENT NUMBER: 134:164720
TITLE: Production of **cellulose ethers**
INVENTOR(S): Thielking, Heiko; Koch, Wolfgang; Nachtkamp, Klaus; Ondruschka, Bernd; Nuechter, Matthias; Klemm, Dieter
PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Germany; Friedrich-Schiller-Universitaet Jena
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19938502	A1	20010215	DE 1999-19938502	19990813
EP 1077220	A1	20010221	EP 2000-116159	20000801
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001089501	A2	20010403	JP 2000-240760	20000809
NO 2000004038	A	20010214	NO 2000-4038	20000811
BR 2000003500	A	20011016	BR 2000-3500	20000811

PRIORITY APPLN. INFO.: DE 1999-19938502 A 19990813

AB **Cellulose ethers** are produced whereby **cellulose** in a first step (a) is activated and in a second step (b) is treated with one or more reagents optionally in the presence of a suspension aid, whereby reaction step b is carried out in an electromagnetic field with a frequency within the range of 10 MHz to 23 GHz. This process is characterized by short reaction times and minimal byproduct formation. CM-cellulose and sulfoethyl cellulose were obtained by this method.

IT **39277-57-1P**
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(prodn. of **cellulose ethers** in electromagnetic field)
RN 39277-57-1 HCAPLUS

CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

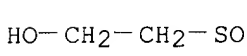
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



L63 ANSWER 3 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:75214 HCAPLUS
DOCUMENT NUMBER: 134:133138
TITLE: Manufacture of (methyl- and hydroxyalkyl-substituted) sulfoalkyl-modified **cellulose ethers** as nonassociative thickeners for **aqueous** coating systems
INVENTOR(S): Hoehl, Frank; Schlesiger, Hartwig; Kiesewetter, Rene
PATENT ASSIGNEE(S): Wolff Walsrode Aktiengesellschaft, Germany
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19935323	A1	20010201	DE 1999-19935323	19990728
WO 2001009254	A1	20010208	WO 2000-EP6800	20000717

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: DE 1999-19935323 A 19990728

AB **Water-sol., ionic cellulose ethers**, useful as thickeners for dispersion coatings, silicone resin-based or silicate coatings, were manufd. For example, cellulose linters was subjected to reaction with CH2:CHSO3Na in the presence of NaOH and the intermediate was ethoxylated with ethylene oxide to give hydroxyethyl sulfoethyl **cellulose ether** having hydroxyethyl group substitution degree (DS) 2.29 and sulfoethyl group DS of 0.08%. The product having viscosity 22,227 mPa.cntdot.s (2% **aq** . soln.) was used as a thickener in a dispersion coating.

IT **158766-31-5DP**, reaction products with glyoxal

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(crosslinked; manuf. of (methyl- and hydroxyalkyl-substituted) sulfoalkyl-modified **cellulose ethers** as nonassociative thickeners for **aq**. coatings)

RN 158766-31-5 HCAPLUS
CN Cellulose, 2-hydroxyethyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

CM 3

CRN 107-21-1
CMF C2 H6 O2

$HO-CH_2-CH_2-OH$

CM 4

CRN 67-56-1
CMF C H4 O

H_3C-OH

IT **113189-11-0P**, 2-Hydroxyethyl 2-sulfoethyl cellulose
147881-56-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(manuf. of (methyl- and hydroxyalkyl-substituted) sulfoalkyl-modified **cellulose ethers** as nonassociative thickeners for **aq**. coatings)

RN 113189-11-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

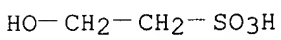
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

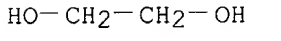
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 107-21-1
CMF C2 H6 O2



RN 147881-56-9 HCAPLUS
CN Cellulose, 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

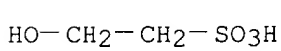
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

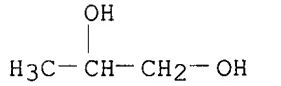
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 57-55-6
CMF C3 H8 O2



L63 ANSWER 4 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:356784 HCAPLUS
DOCUMENT NUMBER: 133:6051
TITLE: Manufacture of polysaccharide derivative solutions having low viscosity

INVENTOR(S): Shibata, Kengo; Sakata, Masaru; Tsuyutani, Shinji; Ueyama, Tsuneo; Iwasaki, Shunya
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000143701	A2	20000526	JP 1998-320127	19981111
JP 3007622	B2	20000207		

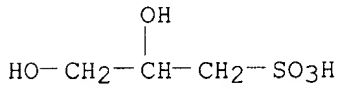
AB The solns. contg. high concn. of polysaccharide derivs., useful as thickeners for cosmetics, etc. (no data), are manufd. by mixing 100 parts a polysaccharide having 1%-**aq**. soln. viscosity at 25.degree. of >1000 mPa.cntdot.s and bearing O-substituted hydrophobic groups and **ionic** hydrophilic groups with 10-1000 parts (meth)acrylic acid type polymers for reducing viscosity. Thus, derivatizing a hydroxyethyl cellulose with stearyl glycidyl ether (I) then with 3-chloro-2-hydroxypropanesulfonic acid Na salt (II) gave a hydroxyethyl cellulose deriv. (III) having degree of substitution for groups derived from I 0.002 and II 0.25, resp. Mixing 100 parts the III and 200 parts (meth)acrylic acid type polymer (no data) in water gave a 1% **aq**. soln. with viscosity 62 mPa.cntdot.s.

IT **270910-31-1 270910-32-2**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(manuf. of polysaccharide deriv. solns. having low viscosity)

RN 270910-31-1 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



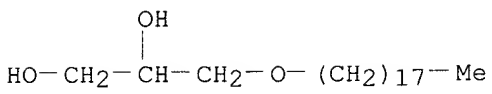
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

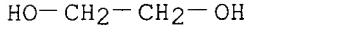
CM 3

CRN 544-62-7
CMF C21 H44 O3



CM 4

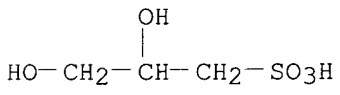
CRN 107-21-1
CMF C2 H6 O2



RN 270910-32-2 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl methyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



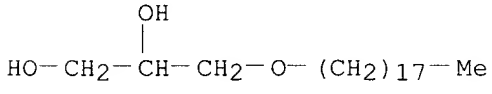
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

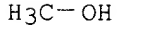
CM 3

CRN 544-62-7
CMF C21 H44 O3



CM 4

CRN 67-56-1
CMF C H4 O



L63 ANSWER 5 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:127594 HCAPLUS
DOCUMENT NUMBER: 132:167435
TITLE: Symplex membranes based on anionic **cellulose ether** derivatives
INVENTOR(S): Thielking, Heiko; Klohr, Erik-andreas; Koch, Wolfgang; Dautzenberg, Horst; Schwarz, Hans-hartmut; Knop, Susanne; Kulicke, Werner-michael
PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Germany
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19837673	A1	20000224	DE 1998-19837673	19980820
WO 2000010694	A1	20000302	WO 1999-EP5737	19990809
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9955117	A1	20000314	AU 1999-55117	19990809
EP 1115475	A1	20010718	EP 1999-941541	19990809
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002523527	T2	20020730	JP 2000-566006	19990809

PRIORITY APPLN. INFO.: DE 1998-19837673 A 19980820
WO 1999-EP5737 W 19990809

AB Symplex membranes based on sulfo-group-contg. anionic **cellulose ether** derivs. are useful for sepn. of water or water vapor from org. compds.

IT **9032-46-6DP**, Sulfoethyl cellulose, complexes with poly(diallyldimethylammonium chloride)
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(symplex membranes based on anionic sulfo-group-contg. **cellulose ether** derivs. for sepn. of org. compds. from water)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

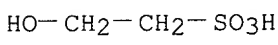
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



L63 ANSWER 6 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:127121 HCAPLUS
DOCUMENT NUMBER: 130:183895
TITLE: Polymer thiosulfates for coating of metals
PATENT ASSIGNEE(S): Universitaet Karlsruhe (Th), Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19735368	A1	19990218	DE 1997-19735368	19970814
WO 9909088	A2	19990225	WO 1998-DE2314	19980811
WO 9909088	A3	19990415		
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9895301	A1	19990308	AU 1998-95301	19980811
EP 932637	A2	19990804	EP 1998-948770	19980811
R: DE, ES, FR, GB, IT				
US 6245579	B1	20010612	US 1999-284351	19990609

PRIORITY APPLN. INFO.: DE 1997-19735368 A 19970814
WO 1998-DE2314 W 19980811

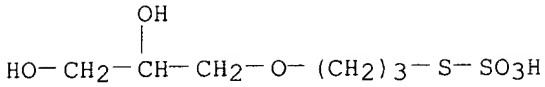
AB Polymer thiosulfates of specified structure, having no unpleasant odor, good H2O soly., and low toxicity, form coatings on metals having good mech. properties and chem. resistance. Stirring 5.0 g microcryst. cellulose with 90 mL 25% NaOH for 48 h, adding 90 mL H2O and 35.4 g allyl **glycidyl ether**, stirring for 2 h at room temp. and 6 days at 60.degree., cooling, neutralizing with HCl, ultrafiltering, and freeze drying gave 79.5% 3-(allyloxy)-2-hydroxypropyl cellulose, refluxing of which (1 g) with 3.18 g K tetrathionate in 100 mL H2O for 2 days gave 0.44 g 3-[3-(thiosulfato)propoxy]-2-hydroxypropyl cellulose. Use of the products in coating of Au and Ag is exemplified.

IT **220648-47-5P**, 3-[3-(Thiosulfato)propoxy]-2-hydroxypropyl cellulose
220648-48-6P, Carboxymethyl 3-[3-(thiosulfato)propoxy]-2-hydroxypropyl cellulose
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(polymer thiosulfates for coating of metals)

RN 220648-47-5 HCAPLUS
CN Cellulose, 2-hydroxy-3-[3-(sulfothio)propoxy]propyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 220648-46-4
CMF C6 H14 O6 S2



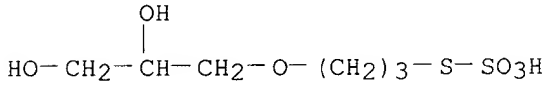
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 220648-48-6 HCAPLUS
CN Cellulose, carboxymethyl 2-hydroxy-3-[3-(sulfothio)propoxy]propyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 220648-46-4
CMF C6 H14 O6 S2



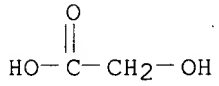
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 79-14-1
CMF C2 H4 O3



L63 ANSWER 7 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:49161 HCAPLUS
DOCUMENT NUMBER: 130:172809
TITLE: Toothpastes containing substituted polysaccharides for good viscosity stability
INVENTOR(S): Ohama, Tamotsu; Kitsuki, Tomohito; Miyajima, Tetsuya
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11012147	A2	19990119	JP 1997-168276	19970625

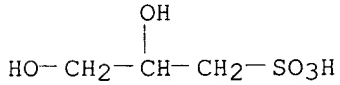
AB Toothpastes contain polysaccharides or their derivs., in which H atoms of the OH groups are partially or totally substituted with (A) (OH-substituted) C10-43 linear or branched alkyl, alkenyl, or acyl which may have CO2, OCO, or **ether** linkages [H atoms of the OH groups of (A) may be substituted with (A) or (B)] and (B) (OH-substituted) X1-5 **sulfoalkyl** or its salt [H atoms of the OH groups of (B) may be substituted with (A) or (B)] with av. degree of substitution of (A) and (B) of 0.0001-1.0 and 0.01-2.0, resp. Hydroxyethyl cellulose (HEC-QP 100M) was **etherified** with stearyl **glycidyl ether** and then **sulfonated** with Na 3-chloro-2-**hydroxypropanesulfonate** to give a deriv. showing the av. degree of substitution of 3-stearyloxy-2-hydroxypropyl and 3-sulfo-2-hydroxypropyl groups of 0.008 and 0.3, resp. The viscosity (3100 mPa-s) of a toothpaste contg. Al(OH)3 40.0, sorbitol 25.0, NaCl 18.5, the cellulose deriv. 0.5 wt.%, etc. remained unchanged (3400 mPa-s) after 14-days storage at 25.degree..

IT **220480-29-5P**
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); PNU (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(toothpastes contg. substituted polysaccharides for good viscosity stability)

RN 220480-29-5 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

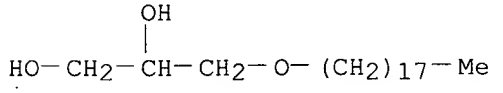
CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2

$HO-CH_2-CH_2-OH$

L63 ANSWER 8 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:48351 HCAPLUS
DOCUMENT NUMBER: 130:172750
TITLE: Hair preparations containing modified polysaccharides
INVENTOR(S): Miyajima, Tetsuya; kohama, Tamotsu; Kitsuki, Tomohito
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11012139	A2	19990119	JP 1997-168275	19970625

AB Hair prepns. which show sufficient viscosity even with high concn. of salts and solvents, comprise (1) oxidants, reducing agents, film-forming polymers, oxidative dyes, and/or acidic dyes and (2) modified polysaccharides. Hydroxyethyl cellulose was treated with stearyl **glycidyl ether**, followed by 3-chloro-2-hydroxypropanesulfonic acid sodium salt to obtain a modified **cellulose ether**. A hair dye contained the above **ether** 1, benzyl alc. 3, citric acid 4, NaOH Q.S. to pH 3, ethanol 15, Black 401 0.03, Violet 401 0.04, Orange 205 0.03, and water to 100 %.

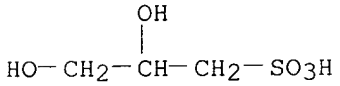
IT **220480-29-5P**, Hydroxyethyl cellulose 3-stearyloxy 2-hydroxypropyl **ether**, 3-sulfo 2-hydroxypropyl **ether** **220480-30-8P**, Hydroxyethyl cellulose 3-stearyloxy 2-hydroxypropyl **ether**, sulfoethyl **ether** **220480-34-2P**, Hydroxyethyl cellulose 3-stearyloxy 2-hydroxypropyl **ether**, sulfopropyl **ether** **220482-42-8P**, Hydroxyethyl cellulose 2-hydroxy-n-octadecyl **ether**, 3-sulfo-2-hydroxypropyl **ether** **220482-43-9P**, Hydroxyethyl **cellulose** n-octadecyl **ether**, 3-sulfo-2-hydroxypropyl **ether** **220482-44-0P**, Hydroxyethyl cellulose 1-oxo-n-octadecyl **ether**, 3-sulfo-2-hydroxypropyl **ether**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(hair prepns. contg. modified polysaccharides)

RN 220480-29-5 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl

2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

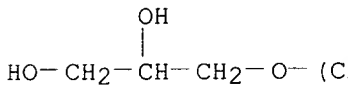
CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

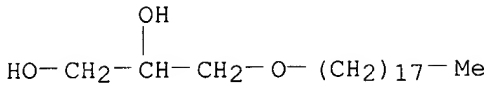
CM 5

CRN 107-21-1
CMF C2 H6 O2

RN 220480-30-8 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

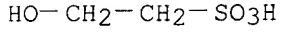
CM 1

CRN 544-62-7
CMF C21 H44 O3



CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

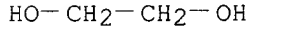
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

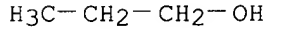
CRN 107-21-1
CMF C2 H6 O2



RN 220480-34-2 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl sulfopropyl ether (9CI) (CA INDEX NAME)

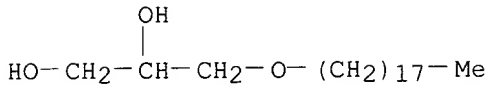
CM 1

CRN 170971-81-0
CMF C3 H8 O4 S
CCI IDS



CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

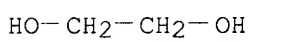
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

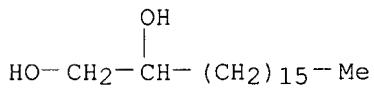
CRN 107-21-1
CMF C2 H6 O2



RN 220482-42-8 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxyoctadecyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

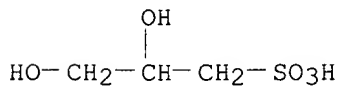
CM 1

CRN 20294-76-2
CMF C18 H38 O2



CM 2

CRN 10296-76-1
CMF C3 H8 O5 S



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

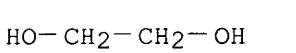
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

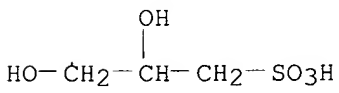
CRN 107-21-1
CMF C2 H6 O2



RN 220482-43-9 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-sulfopropyl octadecyl ether (9CI) (CA INDEX NAME)

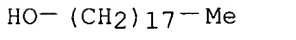
CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



CM 2

CRN 112-92-5
CMF C18 H38 O



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

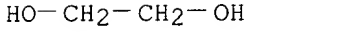
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

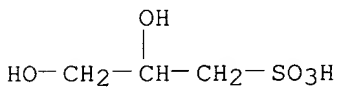
CRN 107-21-1
CMF C2 H6 O2



RN 220482-44-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, octadecanoate, 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

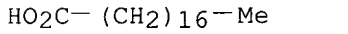
CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



CM 2

CRN 57-11-4
CMF C18 H36 O2



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

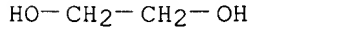
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2



L63 ANSWER 9 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:48348 HCAPLUS
DOCUMENT NUMBER: 130:172768
TITLE: Cosmetic makeups containing modified polysaccharides to improve powder dispersibility
INVENTOR(S): Toritsu, Makoto; Akiyama, Eri; Shinozaki, Yoshio; Kitsuki, Tomohito
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11012131	A2	19990119	JP 1997-168733	19970625

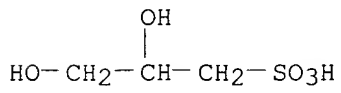
AB Water-resistant makeup compns. comprise (1) modified polysaccharides, (2) hydrophobically treated powders, and (3) water. Hydroxyethyl cellulose was treated with stearyl **glycidyl ether**, followed by 3-chloro-2-hydroxypropanesulfonic acid sodium salt to obtain a modified **cellulose ether**. A foundation contained the above **ether** 0.5, distd. water 38.9, polyoxyethylene oleyl **ether** 0.5, ethanol 5, titania 5, zinc oxide 1, ultrafine titania 5, nylon powder 3, red iron oxide 4, yellow iron oxide 2, black iron oxide 0.1, di-Me cyclosiloxanes 15, dimethylpolysiloxanes 15, and octyl methoxycinnamate 5 %.

IT **208471-56-1P 208471-57-2P 208471-58-3P**
220480-29-5P 220480-30-8P 220480-31-9P
220480-34-2P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(cosmetic makeups contg. modified polysaccharides to improve powder dispersibility)

RN 208471-56-1 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl methyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



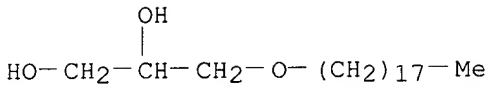
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

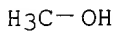
CM 3

CRN 544-62-7
CMF C21 H44 O3



CM 4

CRN 67-56-1
CMF C H4 O



RN 208471-57-2 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

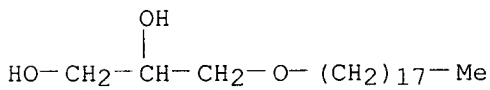
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

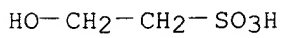
CM 2

CRN 544-62-7
CMF C21 H44 O3



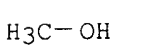
CM 3

CRN 107-36-8
CMF C2 H6 O4 S



CM 4

CRN 67-56-1
CMF C H4 O



RN 208471-58-3 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

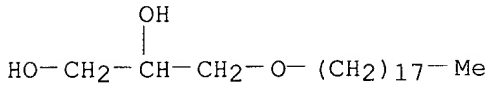
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

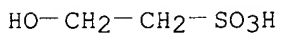
CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

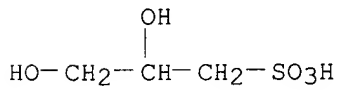
CRN 107-36-8
CMF C2 H6 O4 S



RN 220480-29-5 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

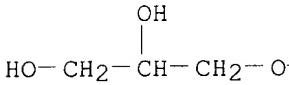
CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

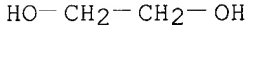
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

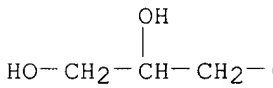
CRN 107-21-1
CMF C2 H6 O2



RN 220480-30-8 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

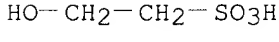
CM 1

CRN 544-62-7
CMF C21 H44 O3



CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

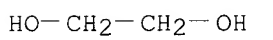
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

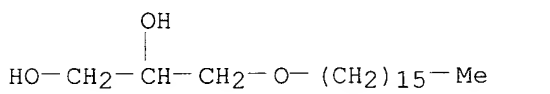
CRN 107-21-1
CMF C2 H6 O2



RN 220480-31-9 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 3-(hexadecyloxy)-2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

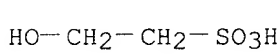
CM 1

CRN 6145-69-3
CMF C19 H40 O3



CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

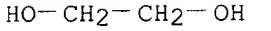
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

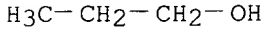
CRN 107-21-1
CMF C2 H6 O2

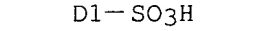


RN 220480-34-2 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

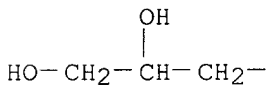
CRN 170971-81-0
CMF C3 H8 O4 S
CCI IDS





CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

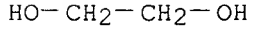
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2



L63 ANSWER 10 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:795490 HCAPLUS
DOCUMENT NUMBER: 130:111692
TITLE: Polysaccharide **sulfoalkyl** derivatives and their manufacture
INVENTOR(S): Kitsuki, Tomohito; Inohara, Takeshi; Miyajima, Tetsuya
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10330401	A2	19981215	JP 1997-141597	19970530

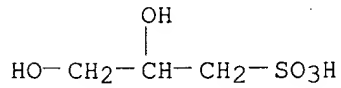
AB The derivs. have (OH-substituted) C1-5 **sulfoalkyl** substitution degree of 0.01-2.0. Optionally, residual OH groups in the polysaccharides may be crosslinked with polyol polyglycidyl **ethers**. The polysaccharide derivs. are manufd. by reacting polysaccharides or their derivs. with **sulfonation** agents selected from **vinylsulfonic** acids, (OH-substituted) halo-C1-5-alkanesulfonic acids, or their salts and optionally with polyol polyglycidyl **ethers**. The polysaccharide derivs. are useful as thickeners or other additives for construction materials, water-thinned coatings, cosmetics, etc. to give good dispersion stability and flowability of the compns. even in the presence of metal salts. Thus, hydroxyethyl cellulose (HEC-QP 100MH) was **etherified** with Na 3-chloro-2-**hydroxypropanesulfonate** to give a cellulose deriv. with **sulfonation** degree 0.143. Addn. of the 3-sulfo-2-hydroxypropyl cellulose deriv. to mortar improved its dispersion stability and flowability.

IT **219607-19-9P**, Hydroxyethyl cellulose 3-sulfo-2-hydroxypropyl **ether** **219607-20-2P**, Hydroxyethyl cellulose 3-sulfo-2-hydroxypropyl **ether**-diethylene glycol diglycidyl **ether** copolymer **219607-21-3P**, Hydroxyethyl cellulose 3-sulfo-2-hydroxypropyl **ether**-poly(ethylene glycol) copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(manuf. of polysaccharide **sulfoalkyl** derivs. for use as thickeners or dispersants)

RN 219607-19-9 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



CM 2

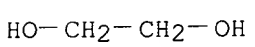
CRN 9004-34-6

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

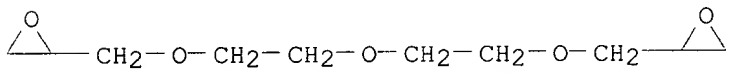
CRN 107-21-1
CMF C2 H6 O2



RN 219607-20-2 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl ether, polymer with 2,2'-[oxybis(2,1-ethanediyloxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 4206-61-5
CMF C10 H18 O5

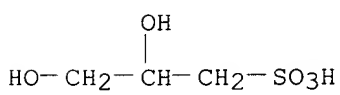


CM 2

CRN 219607-19-9
CMF C3 H8 O5 S . x C2 H6 O2 . x Unspecified

CM 3

CRN 10296-76-1
CMF C3 H8 O5 S



CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

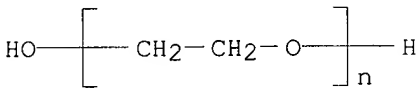
CM 5

CRN 107-21-1
CMF C2 H6 O2

RN 219607-21-3 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl ether, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3
CMF (C2 H4 O)n H2 O
CCI PMS

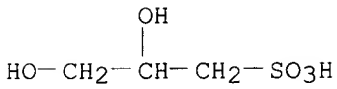


CM 2

CRN 219607-19-9
CMF C3 H8 O5 S . x C2 H6 O2 . x Unspecified

CM 3

CRN 10296-76-1
CMF C3 H8 O5 S



CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2

L63 ANSWER 11 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:388547 HCAPLUS

DOCUMENT NUMBER: 129:55654
TITLE: Polysaccharide derivatives and hydraulic compositions
INVENTOR(S): Yamamuro, Hotaka; Ihara, Takeshi; Kitsuki, Tomohito; Miyajima, Tetsuya; Yamato, Fujio; Kohama, Makoto
PATENT ASSIGNEE(S): Kao Corporation, Japan; Yamamuro, Hotaka; Ihara, Takeshi; Kitsuki, Tomohito; Miyajima, Tetsuya; Yamato, Fujio; Kohama, Makoto
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9823647	A1	19980604	WO 1997-JP4316	19971126
W: CN, ID, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 10158047	A2	19980616	JP 1996-316166	19961127
JP 10292001	A2	19981104	JP 1997-103038	19970421
JP 3329689	B2	20020930		
JP 11001355	A2	19990106	JP 1997-156793	19970613
JP 3260100	B2	20020225		
JP 11012012	A2	19990119	JP 1997-162289	19970619
JP 11012011	A2	19990119	JP 1997-162637	19970619
EP 879826	A1	19981125	EP 1997-913448	19971126
EP 879826	B1	20021023		
R: DE, ES, FR, GB				
CN 1209812	A	19990303	CN 1997-191877	19971126
CN 1093136	B	20021023		
TW 475922	B	20020211	TW 1997-86117795	19971126
EP 1251111	A1	20021023	EP 2002-16399	19971126
R: DE, ES, FR, GB				
US 6068697	A	20000530	US 1998-101632	19980714

PRIORITY APPLN. INFO.:
JP 1996-316166 A 19961127
JP 1997-103038 A 19970421
JP 1997-156793 A 19970613
JP 1997-162289 A 19970619
JP 1997-162637 A 19970619
EP 1997-913448 A3 19971126
WO 1997-JP4316 W 19971126

AB Polysaccharide derivs. are disclosed which have some or all of the hydroxyl groups being substituted by hydrophobic substituent(s) (A) having, as the partial structure, a C8-43 hydrocarbyl group, and **ionic** hydrophilic substituent(s) (B) having, as the partial structure, sulfonate, carboxyl, phosphate or/and sulfate groups and salts thereof, and an av. degree of substitution A, detd. by Zeisel's method or the diazomethane method, of 0.0001-0.001 and an av. degree of substitution B, detd. by the colloidal titrn. method, of 0.01-2.0. These derivs. are useful as chem. admixts. for hydraulic materials, e.g., cement, and give hydraulic compns. excellent in dispersibility and stability. An example of the derivs. was hydroxyethyl cellulose derivatized to bear 3-stearyloxy-2-hydroxypropyl and 3-sulfo-2-hydroxypropyl groups.

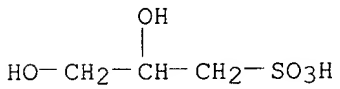
IT **208349-42-2P 208471-51-6P**, Hydroxyethyl cellulose 3-stearyloxy-2-hydroxypropyl 3-sulfo-2-hydroxypropyl **ether**
208471-52-7P 208471-53-8P 208471-54-9P
208471-55-0P 208471-56-1P 208471-57-2P
208471-58-3P 208471-59-4P 208471-60-7P
208471-61-8P 208471-62-9P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(polysaccharide derivs. as assistants for hydraulic compns.)

RN 208349-42-2 HCAPLUS
CN Cellulose, octadecanoate, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



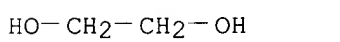
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

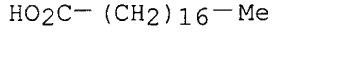
CM 3

CRN 107-21-1
CMF C2 H6 O2



CM 4

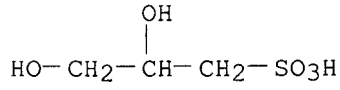
CRN 57-11-4
CMF C18 H36 O2



RN 208471-51-6 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



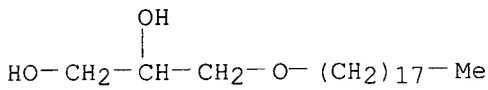
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

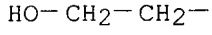
CM 3

CRN 544-62-7
CMF C21 H44 O3



CM 4

CRN 107-21-1
CMF C2 H6 O2



RN 208471-52-7 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

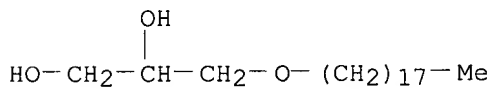
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

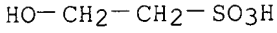
CM 2

CRN 544-62-7
CMF C21 H44 O3



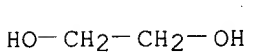
CM 3

CRN 107-36-8
CMF C2 H6 O4 S



CM 4

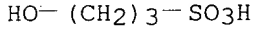
CRN 107-21-1
CMF C2 H6 O2



RN 208471-53-8 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octadecyloxy)propyl 3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 15909-83-8
CMF C3 H8 O4 S



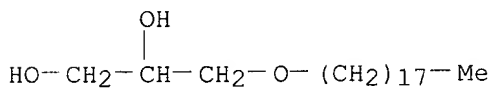
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

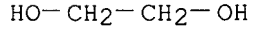
CM 3

CRN 544-62-7
CMF C21 H44 O3



CM 4

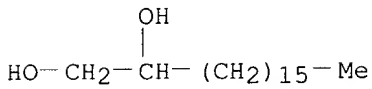
CRN 107-21-1
CMF C2 H6 O2



RN 208471-54-9 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxyoctadecyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

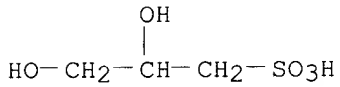
CM 1

CRN 20294-76-2
CMF C18 H38 O2



CM 2

CRN 10296-76-1
CMF C3 H8 O5 S



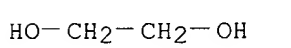
CM 3

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

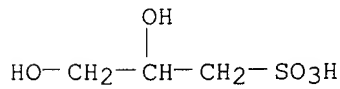
CRN 107-21-1
CMF C2 H6 O2



RN 208471-55-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl octadecyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



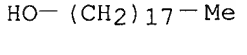
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

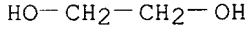
CM 3

CRN 112-92-5
CMF C18 H38 O



CM 4

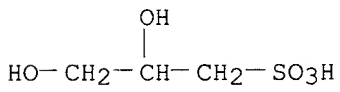
CRN 107-21-1
CMF C2 H6 O2



RN 208471-56-1 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl methyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



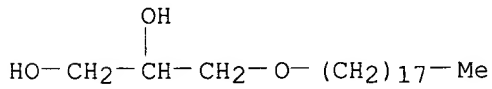
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

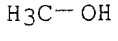
CM 3

CRN 544-62-7
CMF C21 H44 O3



CM 4

CRN 67-56-1
CMF C H4 O



RN 208471-57-2 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

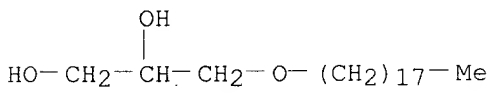
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

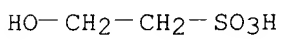
CM 2

CRN 544-62-7
CMF C21 H44 O3



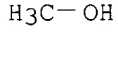
CM 3

CRN 107-36-8
CMF C2 H6 O4 S



CM 4

CRN 67-56-1
CMF C H4 O



RN 208471-58-3 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

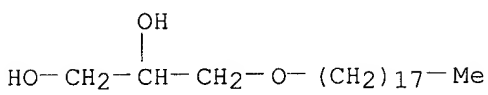
CRN 9004-34-6

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

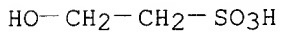
CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

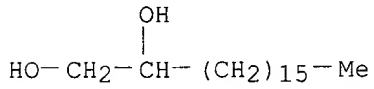
CRN 107-36-8
CMF C2 H6 O4 S



RN 208471-59-4 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxyoctadecyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 20294-76-2
CMF C18 H38 O2



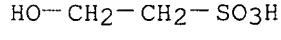
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

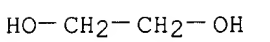
CM 3

CRN 107-36-8
CMF C2 H6 O4 S



CM 4

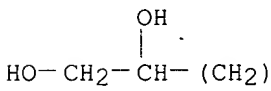
CRN 107-21-1
CMF C2 H6 O2



RN 208471-60-7 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxyoctadecyl 3-sulfopropyl ether (9CI) (CA INDEX NAME)

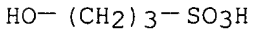
CM 1

CRN 20294-76-2
CMF C18 H38 O2



CM 2

CRN 15909-83-8
CMF C3 H8 O4 S



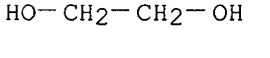
CM 3

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

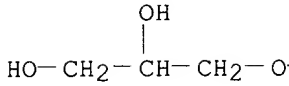
CRN 107-21-1
CMF C2 H6 O2



RN 208471-61-8 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10438-94-5
CMF C11 H24 O3



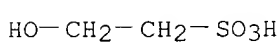
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

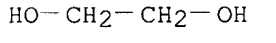
CM 3

CRN 107-36-8
CMF C2 H6 O4 S



CM 4

CRN 107-21-1
CMF C2 H6 O2



RN 208471-62-9 HCAPLUS
CN Cellulose, 3-(hexadecyloxy)-2-hydroxypropyl 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

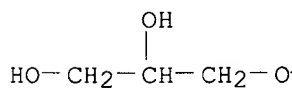
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

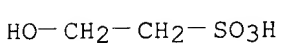
CM 2

CRN 6145-69-3
CMF C19 H40 O3



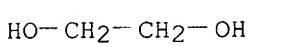
CM 3

CRN 107-36-8
CMF C2 H6 O4 S



CM 4

CRN 107-21-1
CMF C2 H6 O2



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 12 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:388423 HCAPLUS
DOCUMENT NUMBER: 129:44240
TITLE: Hydrocolloids and mixtures of hydrocolloids as additives for drilling mud, and especially as foaming agents and foam stabilizers in tunnel construction by advancing-shield method, especially for shield systems operating with soil pressure
INVENTOR(S): Pannek, Jorn-Bernd; Kiesewetter, Rene; Voigt, Thomas
PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Germany
SOURCE: Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 846842	A1	19980610	EP 1997-120716	19971126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
DE 19651042	A1	19980610	DE 1996-19651042	19961209
JP 10168437	A2	19980623	JP 1997-354038	19971209

PRIORITY APPLN. INFO.: DE 1996-19651042 19961209

AB The hydrocolloids contain .gtoreq.1 **water-sol.** and .gtoreq.1 water-insol. biopolymers, esp. **water-sol.** and water-insol. polysaccharides, e.g., cellulose ethers, and a surfactant. These compns. enhance the ecotoxic value of the soils for landfill.

IT **9032-46-6**, Sulfoethylcellulose
RL: NUU (Other use, unclassified); USES (Uses)
(hydrocolloid compns. contg. surfactants and; as foaming agents and foam stabilizers for drilling mud in tunnel construction by advancing-shield method)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 13 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:107354 HCAPLUS
DOCUMENT NUMBER: 126:121473
TITLE: Use of **water-soluble** cellulose mixed ethers as additives for earth pressure balance shield tunneling
INVENTOR(S): Szablikowski, Klaus; Lange, Werner; Pannek, Joern-Bernd; Kiesewetter, Rene
PATENT ASSIGNEE(S): Wolff Walsrode Ag, Germany
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19521693	A1	19961219	DE 1995-19521693	19950614
EP 750027	A1	19961227	EP 1996-108859	19960603
R: BE, DE, FI, FR, GB, IT, NL, SE				
JP 09003451	A2	19970107	JP 1996-168704	19960610
US 5808052	A	19980915	US 1996-662751	19960610

PRIORITY APPLN. INFO.: DE 1995-19521693 19950614

AB **Water-sol.**, esp. ternary (e.g., ternary **ionic**) cellulose mixed ethers are used as additives for drilling rinses. Optionally, a mixt. of the cellulose mixed ethers and surfactants is used. The additives function as foam-generating or foam-stabilizing components. The additives are esp. suitable for the earth pressure balance shield technique with foam injection for machine tunneling for subway construction and placement of water pipelines, gas pipelines, and telecommunication cables.

IT **113189-11-0 147881-56-9**
RL: MOA (Modifier or additive use); USES (Uses)
(as additive for earth pressure balance shield tunneling)

RN 113189-11-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

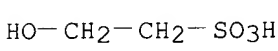
CRN 9004-34-6

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

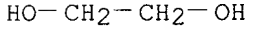
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 107-21-1
CMF C2 H6 O2



RN 147881-56-9 HCAPLUS
CN Cellulose, 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

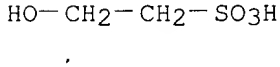
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

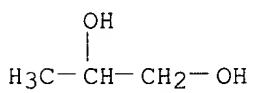
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 57-55-6
CMF C3 H8 O2



L63 ANSWER 14 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:49294 HCAPLUS
DOCUMENT NUMBER: 126:119252

TITLE: Alkyl hydroxyalkyl **cellulose ethers** containing sulfoalkyl groups
INVENTOR(S): Bartz, Uwe; Donges, Reinhard; Klehr, Heiner
PATENT ASSIGNEE(S): Hoechst A.-G., Germany
SOURCE: U.S., 9 pp., Cont.-in-part of U.S. 5,395,930.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5591844	A	19970107	US 1994-345912	19941128
US 5395930	A	19950307	US 1993-72736	19930607
PRIORITY APPLN. INFO.:			DE 1992-4218738	19920606
			US 1993-72736	19930607

AB Alkyl hydroxyalkyl **cellulose ethers** which contain a sulfoalkyl group as a further substituent, a process for their prepn., and construction material mixts. which are based on gypsum, hydrated lime, or cement and contain alkyl hydroxyalkyl **cellulose ethers** contg. sulfoalkyl groups are described. The **ethers** are prepd. by a process comprising: (a) alkalizing the cellulose; (b) adding a compd. transferring OH groups; (c) if necessary, adding further alkalizing agent; and (d) adding a compd. transferring alkyl groups; wherein (e) the addn. of the compd. transferring sulfoalkyl groups is already made during process step (a), but at the latest before process step (d). Thus, ground cellulose pulp was alkalized with aq. NaOH, and aq. Na vinylsulfonate soln. was added and mixed. The mixt. was evacuated and blanketed with N, and a mixt. of Me chloride and ethylene oxide was injected for **etherification** for 60 min at 80-90.degree.. The Me hydroxyethyl sulfoethyl cellulose (I) was washed with hot water, dried, and finely ground. Construction material mixts. contg. I had good water retention capacity.

IT **147625-76-1P**, Methyl sulfoethyl cellulose **158766-31-5P**, Methyl hydroxyethyl sulfoethyl cellulose **158766-33-7P**, Methyl hydroxypropyl sulfoethyl cellulose
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of alkyl hydroxyalkyl **cellulose ethers** contg. sulfoalkyl groups for water retention agents for building materials)

RN 147625-76-1 HCAPLUS
CN Cellulose, methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

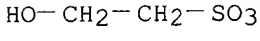
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 67-56-1
CMF C H4 O

RN 158766-31-5 HCAPLUS
CN Cellulose, 2-hydroxyethyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

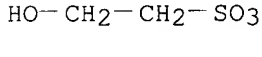
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

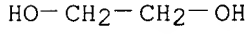
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



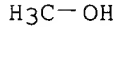
CM 3

CRN 107-21-1
CMF C2 H6 O2



CM 4

CRN 67-56-1
CMF C H4 O



RN 158766-33-7 HCAPLUS
CN Cellulose, 2-hydroxypropyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

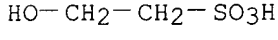
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

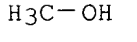
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



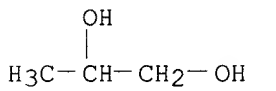
CM 3

CRN 67-56-1
CMF C H4 O



CM 4

CRN 57-55-6
CMF C3 H8 O2



L63 ANSWER 15 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:80503 HCAPLUS
DOCUMENT NUMBER: 124:205309
TITLE: Preparation of sulfoalkyl derivatives of cellulose and other polysaccharides and assay of their anti-HIV activity
AUTHOR(S): Ishikuro, Toshiyuki; Inoue, Satoru; Meshitsuka, Gyousuke; Ishizu, Atsushi; Murakami, Kunichika; Watanabe, Kazuhiro
CORPORATE SOURCE: Faculty Agriculture, Univ. Tokyo, Tokyo, 113, Japan
SOURCE: Sen'i Gakkaishi (1995), 51(12), 571-9
CODEN: SENGA5; ISSN: 0037-9875
PUBLISHER: Sen'i Gakkai
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The prepns. of highly substituted sulfoethyl- and sulfopropyl-celluloses were attempted by the general **etherification** method of **cellulose**, by the method of Isogai and by the method of Kondo, using sodium 2-bromoethyl sulfonate and propanesultone. Sulfopropylations of curdlan and dextran were carried out, and the prepn. of 1-sulfopropylcellulose by the radical addn. of bisulfite to allylcellulose was also attempted. Treatment of cellulose acetate dissolved in DMSO with

powd. NaOH and propanesultone, the method of Kondo, was the best way to prep. a sulfoalkyl deriv. of high degree of substitution (DS). Sulfoalkyl-celluloses together with sulfopropyl-curdlan and -dextran were assayed for anti-HIV activity by the improved MTT method. Activity was found for sulfopropylcelluloses having DS >1.24, although this activity was inferior to that of a dextran sulfate.

IT **9032-46-6P**, Sulfoethyl cellulose **37325-18-1P**, Sulfopropyl cellulose
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**
(prepn. of sulfoalkyl derivs. of cellulose and other polysaccharides and assay of their anti-HIV activity)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

RN 37325-18-1 HCAPLUS
CN Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
CMF C3 H8 O4 S
CCI IDS

$H_3C-CH_2-CH_2-OH$

D1—SO_3H

CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 16 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:267017 HCAPLUS
DOCUMENT NUMBER: 122:33777
TITLE: Highly substituted sulfoalkyl cellulose derivatives, especially sulfoalkyl **cellulose ethers**, their manufacture and use in thickeners for textile printing pastes
INVENTOR(S): Kiesewetter, Rene; Kniewske, Reinhard; Reinhardt, Eugen; Szablikowski, Klaus
PATENT ASSIGNEE(S): Wolff Walsrode AG, Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4243281	A1	19940623	DE 1992-4243281	19921221
EP 603648	A1	19940629	EP 1993-119765	19931208
EP 603648	B1	19970423		
R: BE, DE, FR, IT, NL, SE				
US 5442054	A	19950815	US 1993-166402	19931214
JP 06220101	A2	19940809	JP 1993-342258	19931215
FI 9305706	A	19940622	FI 1993-5706	19931217

PRIORITY APPLN. INFO.: DE 1992-4243281 19921221

AB Sulfoalkyl cellulose derivs., esp. sulfoethyl cellulose, have a degree of substitution of sulfoethyl groups of 1.2-2.0, esp. 1.4-1.8, are prepd. by a 2-step process and used as thickeners or rheol. improvers in textile printing, esp. in reactive printing. Sulfoethyl cellulose with a degree of substitution of 1.42 was prepd. by a 2-step reaction and used in a reactive dye-contg. print paste for a cotton textile giving results comparable to CMC, but with improved color strength.

IT **9032-46-6P**, Sulfoethyl cellulose
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(manuf. and use as thickeners for textile printing pastes)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH_2—CH_2—SO_3H

L63 ANSWER 17 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:658261 HCAPLUS

DOCUMENT NUMBER: 121:258261
TITLE: Highly substituted carboxymethyl sulfoethyl **cellulose ethers** for use in textile printing pastes
INVENTOR(S): Kiesewetter, Rene; Kniewske, Reinhard; Reinhardt, Eugen; Szablikowski, Klaus
PATENT ASSIGNEE(S): Wolff Walsrode AG, Germany
SOURCE: Ger. Offen., 11 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4241286	A1	19940609	DE 1992-4241286	19921208
EP 601403	A1	19940615	EP 1993-118985	19931125
EP 601403	B1	19971029		
R: AT, BE, DE, FR, IT, NL, SE				
AT 159729	E	19971115	AT 1993-118985	19931125
JP 06206902	A2	19940726	JP 1993-329578	19931202
JP 3222000	B2	20011022		
FI 9305466	A	19940609	FI 1993-5466	19931207
CN 1093712	A	19941019	CN 1993-120888	19931208

PRIORITY APPLN. INFO.: DE 1992-4241286 A 19921208

AB Highly substituted carboxymethyl sulfoethyl **cellulose** (I) **ethers**, useful as thickeners in textile printing pastes, are manufd. by a 2-step alkalization-**etherification** process. Thus, a finely ground, bleached, refined cellulose pulp from cotton linters was reacted with monochloroacetic acid, NaOH, and Na vinylsulfonate in a 2-step alkalization-**etherification** process to give I having a substitution degree for sulfoethyl groups of 0.25 and for carboxymethyl groups of 1.42.

IT **39454-65-4P**, Carboxymethyl sulfoethyl cellulose
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); **PREP (Preparation)**; USES (Uses)
(manuf. of highly substituted carboxymethyl sulfoethyl **cellulose ethers** for use in textile printing pastes)

RN 39454-65-4 HCAPLUS
CN Cellulose, carboxymethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

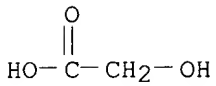
CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH_2—CH_2—SO_3H

CM 3

CRN 79-14-1
CMF C2 H4 O3



L63 ANSWER 18 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:658260 HCAPLUS
DOCUMENT NUMBER: 121:258260
TITLE: Highly substituted carboxymethyl sulfoethyl **cellulose ether** for use as thickener in textile printing
INVENTOR(S): Kiesewetter, Rene; Kniewske, Reinhard; Reinhardt, Eugen; Szablikowski, Klaus
PATENT ASSIGNEE(S): Wolff Walsrode AG, Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4241289	A1	19940609	DE 1992-4241289	19921208
EP 601404	A1	19940615	EP 1993-118986	19931125
EP 601404	B1	19971022		
R: AT, BE, DE, FR, IT, NL, SE				
AT 159535	E	19971115	AT 1993-118986	19931125
US 5455341	A	19951003	US 1993-160709	19931201
JP 06211901	A2	19940802	JP 1993-339622	19931203
JP 3219924	B2	20011015		
FI 9305467	A	19940609	FI 1993-5467	19931207
CN 1093372	A	19941012	CN 1993-120890	19931208
CN 1040004	B	19980930		

PRIORITY APPLN. INFO.: DE 1992-4241289 A 19921208

AB A highly substituted carboxymethyl sulfoethyl cellulose (I) is manufd. by a simple, economical **etherification** process for use as thickening agents in textile printing. Thus, finely ground, bleached, refined cellulose pulp from cotton linters was reacted with monochloroacetic acid, NaOH, and Na vinylsulfonate in iso-PrOH and water to give I having a total degree of substitution of 1.82. I was used as a thickener in textile printing.

IT **39454-65-4P**, Carboxymethyl sulfoethyl cellulose
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); **PREP (Preparation)**; USES (Uses)
(highly substituted carboxymethyl sulfoethyl cellulose for thickener in textile printing)
RN 39454-65-4 HCAPLUS
CN Cellulose, carboxymethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

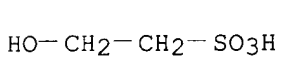
CRN 9004-34-6

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

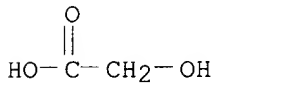
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 79-14-1
CMF C2 H4 O3



L63 ANSWER 19 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:329880 HCAPLUS
DOCUMENT NUMBER: 120:329880
TITLE: **Ionic, water-soluble,** sulfoalkyl-modified, especially sulfoethyl-modified cellulose derivatives as additives for cement- and gypsum-containing plaster compositions
INVENTOR(S): Kiesewetter, Rene; Szablikowski, Klaus; Lange, Werner
PATENT ASSIGNEE(S): Wolff Walsrode Aktiengesellschaft, Germany
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 554751	A1	19930811	EP 1993-101076	19930125
EP 554751	B1	19990707		
R: BE, DE, FR, GB, IT, NL, SE				
DE 4203530	A1	19930812	DE 1992-4203530	19920207
US 5358561	A	19941025	US 1993-9536	19930127
JP 05301756	A2	19931116	JP 1993-33942	19930201
JP 3237796	B2	20011210		

PRIORITY APPLN. INFO.: DE 1992-4203530 A 19920207
AB The derivs. have degree of sulfoethyl substitution 0.001-0.6, esp. 0.01-0.5. At water/cement ratio 0.48 and viscosity 9,250 mPa.s, hydroxypropylsulfoethylcellulose (av. degree of sulfoethyl substitution 0.05) gave slump 168 mm, and water retention 94.7, vs. 0.46 and 92.0, resp. for Walcocel M (methylhydroxyethylcellulose).
IT **113189-11-0 147625-76-1 147881-56-9 155215-39-7 155215-40-0 155328-03-3**

RL: MOA (Modifier or additive use); USES (Uses)
(plasticizers, **ionic**, **water-sol.**, for
cement and gypsum)
RN 113189-11-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

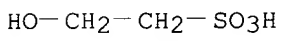
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

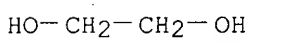
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 107-21-1
CMF C2 H6 O2



RN 147625-76-1 HCAPLUS
CN Cellulose, methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

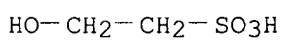
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

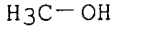
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 67-56-1
CMF C H4 O



RN 147881-56-9 HCAPLUS
CN Cellulose, 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

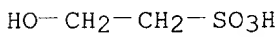
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

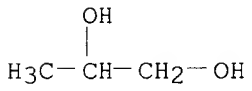
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

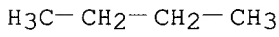
CRN 57-55-6
CMF C3 H8 O2



RN 155215-39-7 HCAPLUS
CN Cellulose, hydroxybutyl 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 25265-75-2
CMF C4 H10 O2
CCI IDS



2 (D1—OH)

CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

CM 4

CRN 107-21-1
CMF C2 H6 O2

$HO-CH_2-CH_2-OH$

RN 155215-40-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

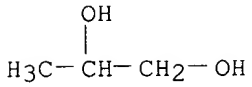
CM 3

CRN 107-21-1
CMF C2 H6 O2

$HO-CH_2-CH_2-OH$

CM 4

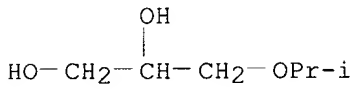
CRN 57-55-6
CMF C3 H8 O2



RN 155328-03-3 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(1-methylethoxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 17226-43-6
CMF C6 H14 O3



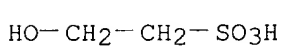
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

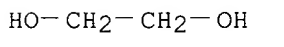
CM 3

CRN 107-36-8
CMF C2 H6 O4 S



CM 4

CRN 107-21-1
CMF C2 H6 O2



L63 ANSWER 20 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:306034 HCAPLUS
DOCUMENT NUMBER: 120:306034
TITLE: **Water-soluble** sulfoalkyl-hydroxyalkyl cellulose derivatives, and their use in cement and/or gypsum compositions
INVENTOR(S): Kiesewetter, Rene; Szablikowski, Klaus; Lange, Werner
PATENT ASSIGNEE(S): Wolff Walsrode Aktiengesellschaft, Germany
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 554749	A2	19930811	EP 1993-101074	19930125
EP 554749	A3	19930929		
EP 554749	B1	19970507		
R: BE, DE, FR, GB, IT, NL, SE				
DE 4203529	A1	19930812	DE 1992-4203529	19920207
US 5385607	A	19950131	US 1993-9538	19930127
JP 05301901	A2	19931116	JP 1993-33951	19930201
JP 3219889	B2	20011015		

PRIORITY APPLN. INFO.: DE 1992-4203529 A 19920207

AB The cellulose derivs. have degree of sulfoethyl substitution 0.001-0.6, esp. 0.01-0.5. These derivs. improve the plasticity of the compns. At water/cement ratio 0.46, hydroxyethylhydroxybutylsulfoethylcellulose [viscosity (described) 13,020 mPa.s] gave slump 168 mm and water redn. 93.8%, vs. 166 and 92.0, resp. for Walocel M (Methylhydroxyethylcellulose) .

IT **155215-39-7 155215-40-0 155328-03-3**
RL: MOA (Modifier or additive use); USES (Uses)
(plasticizer, **ionic, water-sol.**, for cement and gypsum)

RN 155215-39-7 HCAPLUS
CN Cellulose, hydroxybutyl 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 25265-75-2
CMF C4 H10 O2
CCI IDS

$H_3C-CH_2-CH_2-CH_3$

2 (D1—OH)

CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

CM 4

CRN 107-21-1
CMF C2 H6 O2

$HO-CH_2-CH_2-OH$

RN 155215-40-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

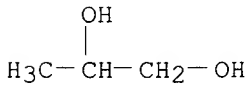
CM 3

CRN 107-21-1
CMF C2 H6 O2

$HO-CH_2-CH_2-OH$

CM 4

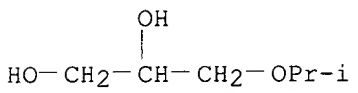
CRN 57-55-6
CMF C3 H8 O2



RN 155328-03-3 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(1-methylethoxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 17226-43-6
CMF C6 H14 O3



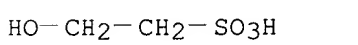
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

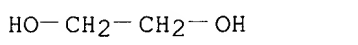
CM 3

CRN 107-36-8
CMF C2 H6 O4 S



CM 4

CRN 107-21-1
CMF C2 H6 O2



L63 ANSWER 21 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:216627 HCAPLUS
DOCUMENT NUMBER: 116:216627
TITLE: Dihydroxypropyl sulfoethyl cellulose preparation and use
INVENTOR(S): Breckwoldt, Joern; Szablikowski, Klaus
PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Germany
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 470444	A2	19920212	EP 1991-112474	19910725
EP 470444	A3	19920708		
EP 470444	B1	19950628		

R: BE, DE, FR, GB, IT, NL, SE

DE 4024968	A1	19920709	DE 1990-4024968	19900807
US 5182380	A	19930126	US 1991-737636	19910730
JP 04279601	A2	19921005	JP 1991-214139	19910801
JP 2799257	B2	19980917		
FI 9103723	A	19920208	FI 1991-3723	19910805

PRIORITY APPLN. INFO.: DE 1990-4024968 19900807

AB The title **ether** (I), which is water-sol. at low degrees of substitution and can be reversibly gelled, is prepd. by sulfoethylation and then dihydroxypropylation of alkali cellulose. Stirring 127 g milled cellulose, 75.5 g NaOH, and 3 L 92.5% iso-PrOH at room temp. for 1 h, adding 0.24 mol 30% aq. CH2:CHSO3Na, stirring at 70.degree. for 90 min, stirring the sulfoethyl cellulose with 31 g NaOH in 3 L 98% aq. acetone at room temp. for 1 h, and adding 87.3 g glycidol over 15 min at 55.degree. gave I with degree of sulfoethylation and dihydroxypropylation 0.18 and 0.8, resp. (yield 60 and 57%, resp.).

IT **141092-50-4P**
RL: **PREP (Preparation)**
(manuf. of water-sol., for reversible gelation)

RN 141092-50-4 HCAPLUS

CN Cellulose, 2,3-dihydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

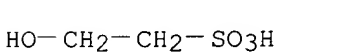
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

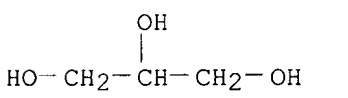
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 56-81-5
CMF C3 H8 O3



L63 ANSWER 22 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1990:538551 HCAPLUS
DOCUMENT NUMBER: 113:138551
TITLE: Preparation of modified cellulose for biocompatible dialysis membranes
INVENTOR(S): Diamantoglou, Michael
PATENT ASSIGNEE(S): AKZO N. V., Neth.
SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 330106	A1	19890830	EP 1989-102853	19890218
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
DE 3901947	A1	19890907	DE 1989-3901947	19890124
JP 02006501	A2	19900110	JP 1989-42005	19890223
JP 2746636	B2	19980506		
US 4981959	A	19910101	US 1989-315574	19890227
US 5093486	A	19920303	US 1990-599832	19901019

PRIORITY APPLN. INFO.: DE 1988-3805992 19880225
US 1989-315574 19890227

AB Biocompatible dialysis membranes are made of the modified cellulose cell(OCOR)m(OX)x(OH)5-(m+x) (cell = cellulose; R = Me, Et, Pr; X = COR2, CSR1, CO2R1, CONHR1, CONR1R2, CH2CH2R1, etc.; R1 = alkyl, alkenyl, alkynyl, etc.; R2 = H, R1; m = 0.75-2.85; x = 0.005-2.10). A mixt. of 50.88g cellulose 2.2-acetate, 5 g KOAc, 26.6 g dodecenylsuccinic acid anhydride and 500 mL dimethylacetamide was heated at 70.degree. for 20 h, to give cellulose 2.2-acetate 0.08-dodecenylsuccinate, which was shaped into a membrane. The membranes cause little blood clotting, leukopenia and complement activation. They adsorb the .beta.2-microglobulins known to induce the Karpal tunnel effect.

IT **51668-24-7P 129495-27-8P**
RL: **PREP (Preparation)**
(prepn. of, for biocompatible dialysis membranes)

RN 51668-24-7 HCAPLUS
CN Cellulose, acetate, 3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 15909-83-8
CMF C3 H8 O4 S

HO— $(CH_2)_3$ — SO_3H

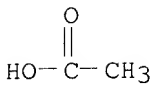
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

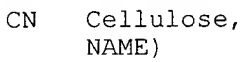
CRN 64-19-7
CMF C2 H4 O2



RN 129495-27-8 HCAPLUS
CN Cellulose, acetate octadecenoate, 3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 15909-83-8
CMF C3 H8 O4 S



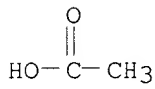
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 64-19-7
CMF C2 H4 O2

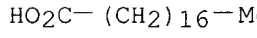


CM 4

CRN 26764-26-1
CMF C18 H34 O2
CCI IDS

CM 5

CRN 57-11-4
CMF C18 H36 O2



L63 ANSWER 23 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:635432 HCAPLUS
DOCUMENT NUMBER: 111:235432
TITLE: Preparation of sulfoethyl cellulose with good solution

properties
INVENTOR(S): Herzog, Dieter; Balser, Klaus; Szablikowski, Klaus
PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 319867	A2	19890614	EP 1988-120200	19881203
EP 319867	A3	19890823		
EP 319867	B1	19930127		
EP 319867	B2	19960313		
R: DE, FR, IT, NL, SE				
DE 3742104	A1	19890622	DE 1987-3742104	19871211
FI 8805691	A	19890612	FI 1988-5691	19881208
FI 95137	B	19950915		
FI 95137	C	19951227		
US 4990609	A	19910205	US 1988-282078	19881209

PRIORITY APPLN. INFO.: DE 1987-3742104 19871211

AB Sulfoethyl cellulose (I) with degree of substitution (DS) 0.4-1.4, viscosity of a 2% aq. soln. at 20.degree. (.eta.) 15-60,000 mPa-s, and light transmission (LT) (2% aq. soln., 550 nm) >95% is prepd. by addn. of **etherifying** agents before addn. of alkali. Stirring cotton linters 113.4, iso-PrOH 2190, and 48.8% aq. CH2:CHSO3Na 261 parts for 15 min, adding 76.3 parts H2O and 67.2 parts NaOH, and stirring at 25-30.degree. for 80 min and 75.degree. for 3 h gave I with chem. yield 49.3%, .eta. 28.2 Pa-s, DS 0.69, and LT 96.8%; vs. 43.4, 67.6, 0.61, and 92.5, resp., when the sulfonate was added after the alkali.

IT **39277-57-1P**, 2-Sulfoethylcellullose sodium salt
123938-77-2P 123938-78-3P
RL: **PREP (Preparation)**
(manuf. of, with low soln. viscosity and good transparency)

RN 39277-57-1 HCAPLUS
CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

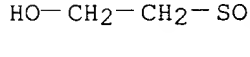
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



RN 123938-77-2 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

CM 3

CRN 107-21-1
CMF C2 H6 O2

$HO-CH_2-CH_2-OH$

RN 123938-78-3 HCAPLUS
CN Cellulose, methyl 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

CM 3

CRN 67-56-1
CMF C H4 O

H_3C-OH

L63 ANSWER 24 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:619280 HCAPLUS

DOCUMENT NUMBER: 111:219280
TITLE: Device for the controlled release of drugs with Donnan-like modulation by charged isoluble resins
INVENTOR(S): Zentner, Gaylen M.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 302693	A2	19890208	EP 1988-307101	19880801
EP 302693	A3	19890322		
EP 302693	B1	19920318		
R: CH, DE, FR, GB, IT, LI, NL				
US 4795644	A	19890103	US 1987-81090	19870803
US 4814183	A	19890321	US 1987-91571	19870831

PRIORITY APPLN. INFO.: US 1987-81090 19870803
US 1987-91571 19870831

AB The title device comprises a core compn. and an imperforate water-insol. wall or a perforable water-insol. wall. The core is made of a water-insol. nondiffusible resin and a **water-sol. ionizable** drug, carrying the same charge as the resin. The imperforate wall is made of a semipermeable material, which is impermeable to the core compn. and permeable to an external fluid. This wall has a means for release of the drug. The perforable wall is made of a polymer permeable to water and impermeable to solute, which contains 0.1-75% water-leachable pore-forming additive. The drug is released by a Donnan-type osmotic transport actuated by water from the environment. The release, which occurs through the pores or release means, has reduced pH dependency. Granules made of diltiazem-HCl, pentaerythritol, Dowex-1, citric acid, and adipic acid (2:10:4:1:1), with PVP as a binder, were tabletted. The tablets were coated by spraying a soln. of 36 g cellulose acetate (32% acetyl content) and 36 g cellulose acetate (39% acetyl content) in CH2Cl2-MeOH. The soln. also contained 36 g sorbitol, as a pore former, and 20 g polyethylene glycol-400 flux enhancer, dissolved in **aq.** MeOH.

IT **9032-46-6**, Sulfoethyl cellulose **37325-18-1**, Sulfopropyl cellulose
RL: BIOL (Biological study)
(sustained-release drug formulations contg.)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

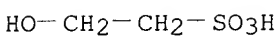
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

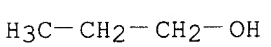
CRN 107-36-8
CMF C2 H6 O4 S

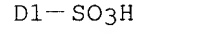


RN 37325-18-1 HCAPLUS
CN Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
CMF C3 H8 O4 S
CCI IDS





CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 25 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:615445 HCAPLUS
DOCUMENT NUMBER: 111:215445
TITLE: Preparation of acrylic-**cellulose** **ether** copolymers with improved water retention and thickening capacity
INVENTOR(S): Buyanov, A. L.; Revel'skaya, L. G.; Nud'ga, L. A.; Petrova, V. A.; Plisko, E. A.; Petropavlovskii, G. A.; Lebedeva, M. F.; Zakharov, S. K.
PATENT ASSIGNEE(S): Institute of High-Molecular-Weight Compounds, Academy of Sciences, U.S.S.R., USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1989, (19), 102. CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1481236	A1	19890523	SU 1987-4290048	19870727

AB The title copolymers having good moisture retention and thickening properties, are prepd. by radical copolymn. of acrylic acid (I) or I-acrylamine mixt. and a polyfunctional crosslinker in an aq. medium. The moisture retention of the copolymers is enhanced while their thickening capacity is maintained at a high level by copolymg. 25-35 wt.% comonomers in the presence of a reaction mixt. obtained by electrolytic oxidn. of Co(AcO)2 in AcOH and 0.05-0.12 wt.% polyfunctional crosslinker selected from allylcarboxymethyl cellulose, allyloxyethyl cellulose, allyloxypropyl cellulose, allylmethyl cellulose, or allylsulfoethyl cellulose.

IT **68190-46-5DP**, Allylsulfoethyl cellulose, polymers with acrylic acid and/or acrylamine
RL: **PREP (Preparation)**
(prepn. of, as thickeners)
RN 68190-46-5 HCAPLUS
CN Cellulose, 2-propenyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

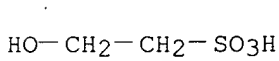
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

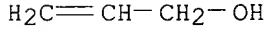
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 107-18-6
CMF C3 H6 O



L63 ANSWER 26 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:597086 HCAPLUS
DOCUMENT NUMBER: 111:197086
TITLE: Carboxymethyl sulfoethyl cellulose and process for its preparation
INVENTOR(S): Herzog, Dieter; Balser, Klaus; Szablikowski, Klaus
PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 319865	A2	19890614	EP 1988-120198	19881203
EP 319865	A3	19900725		
EP 319865	B1	19940622		
R: DE, FR, IT, NL, SE				
DE 3742106	A1	19890622	DE 1987-3742106	19871211
FI 8805692	A	19890612	FI 1988-5692	19881208
FI 94764	B	19950714		
FI 94764	C	19951025		
US 5001232	A	19910319	US 1988-282077	19881209

PRIORITY APPLN. INFO.: DE 1987-3742106 19871211

AB The title product (I), with good soly., degree of substitution by sulfoethyl and carboxymethyl groups (Ds and Dc) 0.1-1 and 0.3-1.2, resp., viscosity of a 2% soln. (.eta.) 5-60,000 MPa at 20.degree., and transmission of a 2% soln. at 550 nm (LT) >95%, is prepd. by mixing **cellulose** with **etherifying** agents before alkali addn. Stirring bleached sulfite pulp (particle size 0.02-0.5 mm) 127.4, 51.3% aq. CH2:CHSO3Na 159.34, and iso-PrOH 2178 parts for 15 min, adding 75.46 parts NaOH in 147.4 parts H2O, stirring 80 min at 25-30.degree. and 2 h at 70.degree., adding 92.34 parts 80% aq. ClCH2CO2H, and stirring 90 min at 70.degree. gave I with chem. yield 66.25%, .eta. 59 mPa-s, Ds 0.53, Dc 0.74, and LT 97.8%.

IT **117989-25-0P**
RL: **PREP (Preparation)**
(manuf. of, with low soln. viscosity and good transparency)

RN 117989-25-0 HCAPLUS

CN Cellulose, carboxymethyl 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

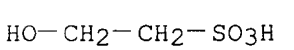
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

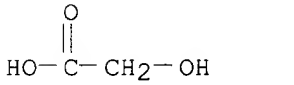
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 79-14-1
CMF C2 H4 O3



L63 ANSWER 27 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1989:540506 HCAPLUS
DOCUMENT NUMBER: 111:140506
TITLE: Controlled-release pharmaceuticals containing **water-soluble ionizable** active agents and **ionic** resins and pore-forming materials for release via the Donnan effect
INVENTOR(S): Zentner, Gaylen M.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: U.S., 17 pp.

CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4795644	A	19890103	US 1987-81090	19870803
CA 1331563	A1	19940823	CA 1988-573425	19880729
EP 302693	A2	19890208	EP 1988-307101	19880801
EP 302693	A3	19890322		
EP 302693	B1	19920318		
R: CH, DE, FR, GB, IT, LI, NL				
JP 02056417	A2	19900226	JP 1988-194323	19880803
JP 07103013	B4	19951108		
US 4976967	A	19901211	US 1988-274172	19881121

PRIORITY APPLN. INFO.: US 1987-81090 19870803
US 1987-91571 19870831

AB A controlled-release delivery device comprises a core contg. a water-insol., nondiffusible charged resin entity; a diffusible, **water-sol. ionizable** active agent carrying the same charge as the resin; surrounding the core, a water-insol. wall consisting of a polymer that is permeable to water, but substantially impermeable to solute, and that contains 0.1-75% by wt., based on the total wt. of the wall; and .gtoreq.1 leachable pore-forming additives dispersed throughout the wall. A 2:10:4:1:1 mixt. contg. diltiazem-HCl, pentaerythritol, Dowex-1, citric acid, and adipic acid was wet-granulated together with 10% poly(vinylpyrrolidone) as binder, compressed into cores (active agent load 60 mg), and coated with a compn. contg. 36 g cellulose acetate (32% acetyl content), 36 g of cellulose acetate (39% acetyl content), H2O-MeOH-CH2Cl2 in a 1:10:5 ratio, 36 g sorbitol as pore-forming agent, and 20 g polyethylene glycol-400; the coating weighed 100 mg. The release of diltiazem-HCl (pKa = 7.7) into a isotonic HCl buffer (pH 1.2) or isotonic phosphate buffer (pH 8.0) was const. following a brief lag period and independent of pH.

IT **9032-46-6D**, Sulfoethyl cellulose, **ionic** derivs.
37325-18-1D, Sulfopropyl cellulose, **ionic** derivs.
RL: BIOL (Biological study)
(controlled-release pharmaceuticals contg. **water-sol**. **ionizable** active agents and pore-forming materials and)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

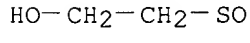
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

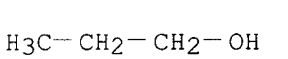
CRN 107-36-8
CMF C2 H6 O4 S

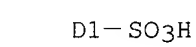


RN 37325-18-1 HCAPLUS
CN Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
CMF C3 H8 O4 S
CCI IDS





CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 28 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:536289 HCAPLUS
DOCUMENT NUMBER: 111:136289
TITLE: **Cellulose** ester **ethers** for preparation of fibers and membranes
INVENTOR(S): Diamantoglou, Michael
PATENT ASSIGNEE(S): AKZO G.m.b.H., Fed. Rep. Ger.
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3723897	A1	19890126	DE 1987-3723897	19870718
EP 300250	A2	19890125	EP 1988-110547	19880701
EP 300250	A3	19890906		
EP 300250	B1	19960605		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 138811	E	19960615	AT 1988-110547	19880701
ES 2087852	T3	19960801	ES 1988-110547	19880701
JP 01036601	A2	19890207	JP 1988-172826	19880713
US 5008385	A	19910416	US 1988-219309	19880715

PRIORITY APPLN. INFO.: DE 1987-3723897 19870718

AB **Cellulose** bearing the **ether** groups OZX (Z = hydrocarbylene; X = H, amino, quaternary ammonio, CN, CO2H, SO3H, phosphono, amido, silyl) and the ester groups OCOY (Y = hydrocarbyl, C6H4CO2H, carboxy alkyl, carboxylvinyl, amino), with degree of substitution (D.S.) 0-2.5 and 0.2-2.95, resp., is useful in membranes and fibers or filaments. Thus, stirring 95.85 g DEAE-cellulose (D.S. 0.25, d.p. 1170) in 1006.4 g AcNMe2 at 145.degree. for 30 min, cooling to

100.degree., adding 95.8 g LiCl, cooling quickly to room temp., stirring overnight, adding 6 g KOAc and 59.2 g phthalic anhydride, and stirring 6 h at 65.degree. and 15 h at room temp. gave DEAE-cellulose phthalate (D.S. 0.24 and 0.28, resp.). Hollow-fiber membranes spun from this deriv. (wall thickness 14 .mu.m, inner diam. 200 .mu.m) had ultrafiltration rate 4.0 mL/h-m2-mm Hg at 37.degree., Vitamin B12 permeability 0.0048 cm/min at 37.degree., and .beta.2-microglobulin adsorption 50%.

IT **122878-54-0P**, 2-Sulfoethyl cellulose acetate
RL: **PREP (Preparation)**
(manuf. of, for membranes and fibers)

RN 122878-54-0 HCAPLUS
CN Cellulose, acetate, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

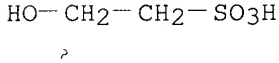
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

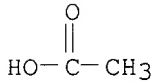
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 64-19-7
CMF C2 H4 O2



L63 ANSWER 29 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:9963 HCAPLUS
DOCUMENT NUMBER: 110:9963
TITLE: Salt-resistant **cellulose ether** sodium salts and their manufacture
INVENTOR(S): Takahashi, Fuminobu; Suzuki, Minoru
PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63182301	A2	19880727	JP 1987-13041	19870122

AB Title cellulose derivs. useful in drilling mud, formulation additives, etc., are prepd. having carboxymethyl group substitution degree (SDcm) 0.2-1.0, sulfoethyl group substitution degree (SDse) 0.4-1.0, and ultra-salt-resistant coeff. K .ltoreq.0.15 [K = (.eta.-.eta.0)/.eta.0; .eta.0 = viscosity (mPa-S) of a 2% the derivs. soln. in pure water; .eta.1 = viscosity of a 2% the derivs. in 4% aq. CaCl2 soln.]. Thus, mixing 70 g cellulose powder (pulp) with 300 g Me2CHOH and 86.4 g 40% aq. NaOH soln. 40 min at 35.degree., adding 46.8 g Na 2-chloroethanesulfonate, heating 60 min at 80.degree., cooling, and heating with 25.7 g chloroacetic acid 60 min at 80.degree. gave cellulose deriv. with SDcm 0.34, SDse 0.55, transparency 57.5 cm, .eta.0 660 mPa-S, and .eta.1 610 mPa-S.

IT **117989-25-0P**
RL: **PREP (Preparation)**
(salt-resistant, manuf. of)

RN 117989-25-0 HCAPLUS

CN Cellulose, carboxymethyl 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

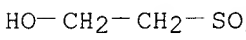
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

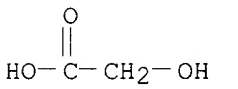
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



CM 3

CRN 79-14-1
CMF C2 H4 O3



L63 ANSWER 30 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:96256 HCAPLUS
DOCUMENT NUMBER: 108:96256
TITLE: Biostable compositions and the **aqueous** solutions thereof as thickeners for **aqueous** -based systems
INVENTOR(S): Nickol, Robert G.
PATENT ASSIGNEE(S): Hercules Inc., USA
SOURCE: U.S., 6 pp. Cont. of U.S. Ser. No. 669,138, abandoned. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4707189	A	19871117	US 1986-873108	19860610

PRIORITY APPLN. INFO.: US 1984-669138 19841107

AB Nonpptg. **aq.** thickening solns. for water-based systems, e.g. paints, shampoos, etc., (no data) are prepd. by dissolving in H2O a dry compn. of .gtoreq.1 anionic **water-sol.** polymer contg. carboxylate or sulfonate groups and .gtoreq.1 cationic quaternary ammonium salt surfactant in ratio (expressed as mol surfactant/mol equiv. carboxylate or sulfonate groups) 0.025-2.0. Adding 1.16 g powd. blend of 3.18 g carboxymethylhydroxyethyl cellulose (I, 5.7% moisture, av. OH/ **anhydroglucose** unit 0.4) and 0.3 g cetyltrimethylammonium bromide (II) to 198.84 g distd. H2O gave **aq.** soln. contg. 0.5% I and 0.05% II.

IT **113189-11-0**
RL: USES (Uses)
(**aq.** mixts. of quaternary ammonium salt and, nonpptg., as thickening agents for water-based systems)

RN 113189-11-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

CM 3

CRN 107-21-1
CMF C2 H6 O2

$HO-CH_2-CH_2-OH$

L63 ANSWER 31 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:39943 HCAPLUS
DOCUMENT NUMBER: 108:39943
TITLE: Crosslinked composite membranes
INVENTOR(S): Honda, Zenjiro; Komada, Hajime; Karakane, Hiroki
PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62171705	A2	19870728	JP 1986-11088	19860123
JP 04007254	B4	19920210		
US 4824573	A	19890425	US 1987-6151	19870123
US 4895685	A	19900123	US 1989-308785	19890210

PRIORITY APPLN. INFO.: JP 1986-11088 19860123
JP 1986-11089 19860123
US 1987-6151 19870123

AB Title membranes contain skin layers which are the reaction products of sulfonate- and/or SO3H group-contg. water-sol. polysaccharides and multifunctional melamine compds. Thus, a DUS 40 (polyether sulfone) membrane was coated with hexamethoxymethylmelamine-crosslinked sulfoethylcellulose and used to treat aq. EtOH. The EtOH concn. was 92.1% in the feed and 0.5% in the liq. passed the membrane.

IT **9032-46-6P**, Sulfoethylcellulose
RL: **PREP (Preparation)**
(manuf. and crosslinking with melamine derivs.)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

L63 ANSWER 32 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:39878 HCAPLUS
DOCUMENT NUMBER: 108:39878
TITLE: Studies on the ion selective charged membranes (I). Permeability of alkaline metal and tetraalykylammonium chlorides through charged sulfoethyl cellulosic membranes
AUTHOR(S): Pak, Soo Min
CORPORATE SOURCE: Coll. Eng., Pusan Natl. Univ., Pusan, 607, S. Korea
SOURCE: Journal of the Korean Fiber Society (1987), 24(4), 384-90
CODEN: HSKCDQ; ISSN: 0253-6420
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The permeation of alkali metal and tetraalkylammonium chloride through charged sulfoethyl cellulosic membranes was investigated at 25.degree..

The permeability coeffs. increased in a sequence: KCl > Me4NCl > Et4NCl > Bu4NCl. This sequence was explained by considering the partition and the hydration of the ions in these hydrophilic membranes. The dependence of the permeability on the salts concn. was interpreted by Teorell-Meyer-Sievers theory based on the Nernst-Planck equation. **Ionic** mobility ratio in these membranes showed the same dependence on the Stokes radius of the cation as that in the bulk **aq.** soln. The effectiveness of the fixed charge d. was found on the **ionic** species and was explained by considering the counterion binding by the neg. charged groups in the membrane.

IT **9032-46-6**, Sulfoethyl cellulose
RL: USES (Uses)
(membranes, permeation of alkali metal and tetraalkylammonium chlorides through, partition and hydration in relation to)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

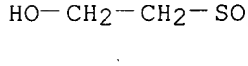
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



L63 ANSWER 33 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:220706 HCAPLUS
DOCUMENT NUMBER: 106:220706
TITLE: Sorption of sodium benzenesulfonate by charged cellulose membranes
AUTHOR(S): Kimura, Yuji; Iijima, Toshiro
CORPORATE SOURCE: Dep. Polym. Sci., Tokyo Inst. Technol., Tokyo, 152, Japan
SOURCE: Sen'i Gakkaishi (1987), 43(4), 173-8
CODEN: SENGA5; ISSN: 0037-9875
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Equil. sorption of Na benzenesulfonate (I) by charged cellulose membranes carboxyethyl cellulose (CEC), sulfoethyl cellulose (SEC), and phosphorylated cellulose (PC) was detd. by measuring both of the cation and anion concns. at 25.degree.. The results were analyzed by the simple Donnan model in which a homogeneous charge distribution is assumed. In the range of **aq.** salt concn. C > C.chi. (effective fixed charge d.), the Donnan approach reproduced the exptl. results quite well. In the range of C < C.chi., however the deviation was clearly obsd., esp. for SEC and PC membranes which have high C.chi.. The sorption data could be explained well over all range of salt concns. (1 .times. 10-3 .apprx.4 .times. 10-1 mol/L) by Petropoulos's theory, which is based on the nonhomogeneous charge distribution. The Z-factors as the measure of the non-homogeneous charge distribution were estd. as 0.72 | 0.81 for NaCl and

0.82 .apprx. 0.85 for I. The partition coeffs. of I were lower than NaCl. The effects of **ionic** size on these values were suggested.

IT **9032-46-6**, Sulfoethyl cellulose
RL: PRP (Properties)
(membrane, sorption of sodium benzenesulfonate on charged)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

$HO-CH_2-CH_2-SO_3H$

L63 ANSWER 34 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:68927 HCAPLUS
DOCUMENT NUMBER: 106:68927
TITLE: Membrane potential and permeability of charged cellulosic membrane in **aqueous** alkali metal salts systems
AUTHOR(S): Kimura, Yuji; Iijima, Toshiro
CORPORATE SOURCE: Dep. Polym. Sci., Tokyo Inst. Technol., Ookayama, 152, Japan
SOURCE: Sen'i Gakkaishi (1986), 42(12), T692-T698
CODEN: SENGA5; ISSN: 0037-9875
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB The membrane potential and permeability of charged cellulosic membranes in alkali metal salts soln. were detd. at 25.degree.. The membranes used were carboxyethyl cellulose (I) [9004-42-6], sulfoethyl cellulose (II) [**9032-46-6**], and cellulose phosphate (III) [9015-14-9] with the same degree of substitution (0.02). The membrane potential and permeability as a function of the salt concn. were analyzed by means of the TMS (Teorell-Meyer-Sievers) theory. In a series of alkali metal chlorides the diffusion coeffs. of the cations in the membranes decreased with increasing Stokes radius of the cations. The diffusion coeffs. of alkali metal chlorides increased with increasing Stokes radius of the cations. In the case of Na salts carrying different counter anions i.e., NaCl, NaNO3, and PhSO3Na [515-42-4], the diffusion coeffs. of the anions decreased with increasing **ionic** sizes. The diffusion coeffs. of the Na ions in these salts were approx. of the same value. The effective fixed charge d. and the diffusion coeff. of ions in the membranes increased in the sequence I < II < III. These results were explained by considering the counterion binding by the neg. charged groups in the membranes.

IT **9032-46-6**, Sulfoethyl cellulose
RL: PRP (Properties)
(membrane potential and permeability of, to alkali metal salt solns.)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

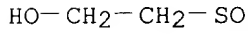
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



L63 ANSWER 35 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:80577 HCAPLUS
DOCUMENT NUMBER: 102:80577
TITLE: Sulfoethylation of pulp and the properties of prepared **ethers**
AUTHOR(S): Pastyr, Jan; Ebringerova, Anna; Zakutna, Libusa; Cepero, I.
CORPORATE SOURCE: Chem. Ustav, SAV, Bratislava, 842 38, Czech.
SOURCE: Chemicke Vlakna (1984), 34(3), 152-66
CODEN: CMVLA8; ISSN: 0528-9432
DOCUMENT TYPE: Journal
LANGUAGE: Slovak
AB SEM and TEM study showed that activation of sulfate bagasse pulp with NaOH solns. resulted in significant swelling of the fibers and loosening of their cell wall structure, whereas activation of the pulp with H2SO4 solns. did not cause significant swelling but the fibers were deformed and their fibrillar structure was partially destroyed. **Etherification** of the acid-activated pulp with .beta.-chloroethyl sulfonate gave water-sol. esters in higher yield than in the case of **etherification** of alkali-activated samples. These results are in agreement with the morphol. observations and confirm that the reactivity of the acid-activated bagasse pulp is higher than that of alkali-activated sample. The **ethers** obtained from both acid- and alkali-activated pulps had a very similar fibrillar structure.
IT **9032-46-6P**
RL: **PREP (Preparation)**
(prepn. of, from bagasse pulp, preliminary alkali or acid treatment of pulp in relation to)
RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

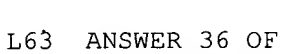
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



L63 ANSWER 36 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:20095 HCAPLUS
DOCUMENT NUMBER: 102:20095
TITLE: Enzymic hydrolysis of **water-soluble** cellulose derivatives with respect to determination of endo-.beta.-1,4-glucanase activity.
AUTHOR(S): Polter, E.; Kasulke, U.; Philipp, B.
CORPORATE SOURCE: Inst. Tech. Chem., DAW, Leipzig, DDR-7050, Ger. Dem. Rep.
SOURCE: Acta Biotechnologica (1984), 4(4), 347-53
CODEN: ACBTDD; ISSN: 0138-4988
DOCUMENT TYPE: Journal
LANGUAGE: German

AB Uncharged (hydroxyethyl-cellulose) cellulose derivs. and cellulose derivs. with strongly acidic groups (cellulose sulfate and sulfoethyl-cellulose) provided max. activity with the cellulase complex of Gliocladium HUgk, depending on the pH, in expts. in which reducing sugar release was measured. Carboxymethyl- and carboxyethyl-celluloses as substrates caused a degree-of-substitution-dependent shift of the optimum activity to a lower pH, and the max. was always found at an effective charge d. of 0.1 mol CO2-/**anhydroglucose** unit. The height of the max. in the curve of reducing sugar release vs. pH and the extent of the proportional area between reducing sugar release and enzyme concn. (linear area) were dependent on the no. and length of unsubstituted **anhydroglucose** sequences and also the degree of substitution and substituent distribution in the substrate. The values of carboxymethylcellulase activity detd. with Gliocladium cellulase prepns. differed considerably when different cellulose derivs. were used as substrates, and the values for the anionic derivs. had a definite correlation with the reciprocal value of the effective charge d. The proper choice of substrate for detn. of carboxymethylcellulase activity is discussed, based on these results.

IT **9032-46-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(hydrolysis of, by cellulase prepn. from Gliocladium, substrates for detn. of carboxymethylcellulase in relation to)
RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

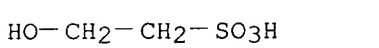
CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

CMF C2 H6 O4 S



L63 ANSWER 37 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:612956 HCAPLUS
DOCUMENT NUMBER: 101:212956
TITLE: Mercaptohydroxypropyl cellulose
INVENTOR(S): Gemeiner, Peter
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 3 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Slovak
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 217458	B	19830128	CS 1981-3476	19810512

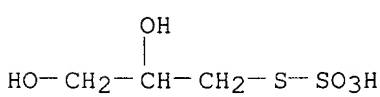
AB 2-Hydroxy-3-mercaptopropyl cellulose (I) [37291-32-0] is prepd. by **etherification** of **cellulose** (II) [9004-34-6] (5-15% moisture) with epichlorohydrin (III) [106-89-8] at 80-95.degree. for 2-4 h in the presence of HClO4 or HCl, followed by treatment with Na2S2O3 and redn. with thiols in buffer solns. Thus, to 9 g dry II 1.6 mL water and 17.6 mL III were added, the mixt. was stirred 30 min and treated slowly with 0.2 mL 6% HClO4. After 3 h at 95.degree. 3-chloro-2-hydroxypropyl cellulose [55069-36-8] (8.6 g, 4.6% Cl) was obtained, which was suspended (5 g) in 15 mL 4.4 M Na2S2O3, kept 15 h at 100.degree., and washed with water and Me2CO to give 4.95 g 2-hydroxy-3-thiosulfatopropyl cellulose (IV) [68821-82-9] contg. 4.05% S. IV was then resuspended in 27 mL 50 mM Na2B4O7 soln. contg. 1.15% tributylphosphine and 3.7 mL 2-mercaptoethanol [60-24-2], pH was adjusted to 9, and the reaction mixt. was stirred for 30 min. The obtained I (4.3 g) was washed with 1 mM Chelaton 3, water, and Me2CO and contained 2.3% S and 0.33 mmol SH-groups/g. I is useful for isolation and purifn. of enzymes, proteins, peptides, etc.

IT **68821-82-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(prepn. and redn. of, in presence of mercaptoethanol)

RN 68821-82-9 HCAPLUS
CN Cellulose, 2-hydroxy-3-(sulfothio)propyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170481-02-4
CMF C3 H8 O5 S2



CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 38 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:472430 HCAPLUS
DOCUMENT NUMBER: 99:72430
TITLE: Sulfoethyl derivatives of polysaccharides soluble in water
INVENTOR(S): Ebringerova, Anna; Pastyr, Jan
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 3 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Slovak
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 200676	B	19800915	CS 1978-1172	19780224

AB The title compds. are obtained by **etherification** of polysaccharides 1-3 h at 40-65.degree. with Na vinylsulfonate (I) [3039-83-6] in alk. soln. in dioxane, Me2CO, C6H6, iso-PrOH, or PrOH at polysaccharide:alkali hydroxide:I molar ratio 1:1-2.5:0.5-1. Thus, 1 kg regenerated cellulose [9004-34-6] (av. mol. wt. 330-350) was mixed with 0.8 L emulsion of 40% NaOH in 15 L iso-PrOH for 60 min, and another 1 h at 40.degree. with 0.8 kg I to give after washing and drying 1.4 kg water-sol. sulfoethyl cellulose ester Na salt [39277-57-1] with substitution degree 0.3-0.7.

IT **39277-57-1P**
RL: **PREP (Preparation)**
(manuf. of, by **etherification** of **cellulose** with sodium vinylsulfonate)

RN 39277-57-1 HCAPLUS
CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

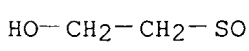
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



L63 ANSWER 39 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:618274 HCAPLUS
DOCUMENT NUMBER: 97:218274

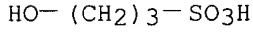
TITLE: Chemical derivatization of cellulosic residues. 1. Sulfoalkylation of hemicelluloses
AUTHOR(S): Focher, B.; Marzetti, A.; Cattaneo, M.; Sarto, V.; Torri, G.
CORPORATE SOURCE: Staz. Sper. Cell. Carta Fibre Tess. Veg. Artif., Milan, Italy
SOURCE: Carbohydrate Polymers (1982), 2(4), 290-4
CODEN: CAPOD8; ISSN: 0144-8617
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The activation of hemicellulose (I) [9034-32-6], recovered from I soln. contg. 24% NaOH by pptn. with EtOH and Me2SO, with dimsyl Na (II) [15590-23-5] followed by reaction with propane sultone (III) [1120-71-4] in Me2SO resulted in the prepn. of 3-sulfopropyl cellulose (IV) [39322-23-1]. The yield of IV depended on the ratio of II-I and activation time and was in the highest value at II-I ratio of 10-25 mL/g and for activation time of 15-30 min., and that obtained from Me2SO pptn. was higher than that obtained from EtOH pptn.

IT **39322-23-1P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)
RN 39322-23-1 HCAPLUS
CN Cellulose, 3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 15909-83-8
CMF C3 H8 O4 S



CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 40 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:201506 HCAPLUS
DOCUMENT NUMBER: 96:201506
TITLE: Manufacture of sodium 2-sulfoethyl cellulose
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57018701	A2	19820130	JP 1980-93109	19800708
JP 63056243	B4	19881107		

AB An alkali **cellulose** dispersion preheated to **etherification** temp. was treated dropwise or stepwise with Na

2-chloroethanesulfonate (I) [15484-44-3] to give Na 2-sulfoethyl cellulose (II) [39277-57-1] with excellent transparency. For example, a linter pulp dispersion in iso-PrOH was treated with 30.8% aq. NaOH to give an alkali cellulose dispersion which, understirring at 82-84.degree., was treated with half the I to be used for 30 min and then the remaining I for 1 h to give II with degree of **etherification** 0.33, transparency (2% aq. soln., 10 mm cell) 80%, viscosity (2% aq. soln.) 50,000 cP, and I conversion 57.9%, compared with 0.28, 23, 50,000, and 49.1, resp., for a process using a single addn. of I.

IT **39277-57-1P**
RL: **PREP (Preparation)**
(manuf. of transparent)

RN 39277-57-1 HCAPLUS
CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

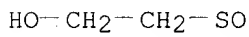
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



L63 ANSWER 41 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:69795 HCAPLUS
DOCUMENT NUMBER: 96:69795
TITLE: Preparation of bead-shaped cellulosic ion exchangers
AUTHOR(S): Matsumoto, Kazuaki; Hirayama, Chuichi; Motozato, Yoshiaki
CORPORATE SOURCE: Fac. Eng., Kumamoto Univ., Kumamoto, 860, Japan
SOURCE: Nippon Kagaku Kaishi (1981), (12), 1890-8
CODEN: NKAKB8; ISSN: 0369-4577
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Various types of bead-shaped cellulosic ion exchangers were prepd. from bead-shaped cellulose (I) or crosslinked bead-shaped I or crosslinked porous bead-shaped I. DEAE-cellulose (II) [9013-34-7] and ECTEOLA-cellulose [9015-13-8] were prepd. by reaction of the basic materials with ClCH2CH2NEt2.HCl and a mixt. of epichlorohydrin and triethanolamine, resp. Their anion exchange capacities and degrees of swelling were .apprx.2.7, .apprx.0.5 mequiv/g and .apprx.29, .apprx.6.2 mL/g, resp. CM-cellulose [9004-32-4], sulfomethyl cellulose [9015-17-2] And cellulose phosphate [9015-14-9] were prepd. by reaction of the basic materials with ClCH2CO2H, ClCH2SO3Na, and POCl3, resp. Their cation exchange capacities and degrees of swelling were .apprx.2.2, .apprx.0.9, .apprx.1.8 mequiv/g and .apprx.47, .apprx.19, .apprx.10 mL/g, resp. Excluded crit. mol. wts. (Mlim) of the ion exchangers from crosslinked porous I beads were larger than those from crosslinked I beads. For example, Mlim of II from the former was 4 times larger than II prepd. from the latter.

IT **9015-17-2P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(cation exchangers, bead-shape, prepn. and exchange and swelling properties of)
RN 9015-17-2 HCAPLUS
CN Cellulose, sulfomethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 75-92-3
CMF C H4 O4 S

$HO-CH_2-SO_3H$

L63 ANSWER 42 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:571347 HCAPLUS
DOCUMENT NUMBER: 95:171347
TITLE: **Cellulose** sulfoalkyl **ethers**
INVENTOR(S): Smirnova, G. N.; Katalevskaya, I. V.; Petrenko, V. A.; Prokof'eva, M. V.; Komyakov, Yu A.; Lipkes, M. I.; Anan'ev, A. N.
PATENT ASSIGNEE(S): USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1981, (25), 271.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 677412	A1	19810707	SU 1973-1560137	19730201

AB Sulfoalkyl **ethers** of **cellulose** are produced by reaction of alkali metal **cellulose** or **cellulose ether** with a mixt. of isomeric 1,4- and 2,4-butane sultones in a ratio of 34.7-45.2:44.2-47.2, contg. 5-20% Bu chlorobutanesulfonate, as sulfoalkylating agent, and carrying out the process at a cellulose/sulfoalkylating agent ratio of 1:1-2.
IT **37325-17-0P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)
RN 37325-17-0 HCAPLUS
CN Cellulose, sulfobutyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-80-9
CMF C4 H10 O4 S

CCI IDS

$H_3C-CH_2-CH_2-CH_2-OH$

D1—SO_3H

CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 43 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:482674 HCAPLUS
DOCUMENT NUMBER: 95:82674
TITLE: Hybrid cellulose derivatives
PATENT ASSIGNEE(S): Fuji Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56041201	A2	19810417	JP 1979-117766	19790912
JP 58004042	B4	19830124		

AB The reaction of alkali cellulose (I) with alkylene oxide, glycidyltrialkylammonium chloride, and propane sultone (II) or butyrolactone gave the title product. Thus, a mixt. of I 440, ethylene oxide 66, glycidyltrimethylammonium chloride 250 g, and II in 300 mL Me2CO and 400 mL MeOH was stirred for 3 h at 55.degree. to give 408 g product forming a transparent flexible film.

IT **78690-16-1P**
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(manuf. of)

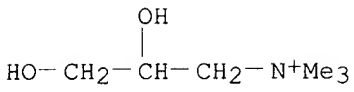
RN 78690-16-1 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(trimethylammonio)propyl 3-sulfopropyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 170553-73-8
CMF C6 H16 N O2 . x C3 H8 O4 S . x C2 H6 O2 . x Unspecified

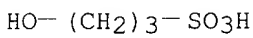
CM 2

CRN 44814-66-6
CMF C6 H16 N O2



CM 3

CRN 15909-83-8
CMF C3 H8 O4 S



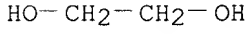
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2



L63 ANSWER 44 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1980:606424 HCAPLUS
DOCUMENT NUMBER: 93:206424
TITLE: Sulfoethyl cellulose
INVENTOR(S): Plisko, E. A.; Nud'ga, L. A.; Petropavlovskii, G. A.
PATENT ASSIGNEE(S): Institute of High-Molecular-Weight Compounds, Academy of Sciences, U.S.S.R., USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1980, (31), 93-4.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 757540	T	19800823	SU 1976-2360258	19760317

AB In the prodn. of sulfoethyl cellulose [9032-46-6], treatment of alkali cellulose (I) [9004-34-6] with a 2.5-16% soln. of Na vinylsulfonate (II) in secondary or tertiary alcs. at I-II molar ratio 1:1-6 at 60-90.degree. simplified the procedure and reduced the consumption of II.

IT **9032-46-6P**
RL: **PREP (Preparation)**
(manuf. of, in presence of secondary and tertiary alcs.)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

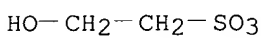
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



L63 ANSWER 45 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:88971 HCAPLUS
DOCUMENT NUMBER: 90:88971
TITLE: Coagulation of cellulose ethers and esters in the presence of **nonaqueous** precipitants and electrolytes
AUTHOR(S): Pletnev, M. Yu.; Trapeznikov, A. A.
CORPORATE SOURCE: Inst. Fiz. Khim., Moscow, USSR
SOURCE: Kolloidn. Zh. (1978), 40(2), 368-72
CODEN: KOZHAG; ISSN: 0023-2912
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The threshold concn. of iso-PrOH or acetone for coagulation of 0.6% solns. of CM-cellulose Na salt [9004-32-4] and 2-sulfoethyl cellulose Na salt [**39277-57-1**] decreased with increasing concn. of electrolyte. Among the electrolytes the effect decreased in the cation order Al > Ca > Zn > K > Na > NH4 > Li and in the anion series I .gtoreq. Br > Cl > CO3 .simeq. SO4 > PO4. The effect of anion is much weaker than that of cation. The coagulation thresholds were detd. by nephelometric titrn. at 540 .+-. 10 nm.
IT **39277-57-1**
RL: USES (Uses)
(coagulation of, by iso-Pr alc., electrolyte effect on)
RN 39277-57-1 HCAPLUS
CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH_2—CH_2—SO_3H

L63 ANSWER 46 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1978:39177 HCAPLUS
DOCUMENT NUMBER: 88:39177
TITLE: Sulfoethylcellulose soluble in water and water solutions of alkalies
INVENTOR(S): Pastyr, Jan; Kuniak, Ludovit
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 2 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 168967	B	19760629	CS 1973-2292	19730329

AB **Etherifying cellulose** (I) [9004-34-6] with Na .beta.-chloroethylsulfonate (II) [15484-44-3] gave sulfoethyl cellulose (III) [9032-46-6]. Thus, a mixt. of 1 kg powd. I in 0.87-1.1 L 50% NaOH was stirred for 30 min to give Na cellulose which was treated with 12 L iso-PrOH and 0.5-0.525 kg II, heated for 1-2 h at 65.degree., filtered, washed with 90% EtOH, and dried in vacuo at 60.degree. to give III with 0.45-0.5 substitution degree.

IT **9032-46-6P**
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(manuf. of)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH_2—CH_2—SO_3H

L63 ANSWER 47 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:6322 HCAPLUS
DOCUMENT NUMBER: 86:6322
TITLE: Vinylsulfonation of precrosslinked cellulose
AUTHOR(S): Simeonov, N.; Dimov, K.
CORPORATE SOURCE: Vyssh. Khim.-Tekhnol. Inst., Sofia, Bulg.
SOURCE: Cellul. Chem. Technol. (1976), 10(4), 419-21

CODEN: CECTAH
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Highly **etherified sulfoethylcellulose** [37325-18-1] was obtained by vinylsulfonation of cellulose (I) [9004-34-6] fibers preliminarily crosslinked with dimethylethyleneurea [80-73-9] or HCHO [50-00-0]. The degree of vinylsulfonation was increased on using mixts. of HCHO with of glucose, glycol, or glycerol as crosslinking agents. The degree of vinylsulfonation of HCHO-crosslinked I fibers was increased from 8.44 to 15.7% S by the presence of glucose. The obtained fibers were insol. and had good strength properties.
IT **37325-18-1P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of, by vinylsulfonation of crosslinked cellulose)
RN 37325-18-1 HCAPLUS
CN Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
CMF C3 H8 O4 S
CCI IDS

$H_3C-CH_2-CH_2-OH$

D1—SO_3H

CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 48 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1976:91888 HCAPLUS
DOCUMENT NUMBER: 84:91888
TITLE: **Hydroxypropylcellulose** and mixed **ether** derivatives
INVENTOR(S): Molnar, Henri
PATENT ASSIGNEE(S): Novacel S. A., Fr.
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2523272	A1	19751218	DE 1975-2523272	19750526
FR 2273012	A1	19751226	FR 1974-18726	19740530
FR 2306215	A2	19761029	FR 1975-10220	19750402
GB 1490160	A	19771026	GB 1975-22811	19750523

NL 7506309 A 19751202 NL 1975-6309 19750528
PRIORITY APPLN. INFO.: FR 1974-18726 19740530
FR 1975-10220 19750402

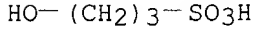
AB Treating powd. cellulose (I) with **aq.** NaOH soln. at room temp. and **etherifying** with propylene oxide (II), chloroacetic acid or propane sultone in C7H16 at 70-90.degree. gave I **ethers** for which pressing in the 1st stage of the process was not necessary. Thus, a mixt. of 1 part I and 0.07 part NaOH dissolved in 0.2 part H2O was stirred for 1 hr at room temp., treated with 2.65 parts II and 2.5 parts C7H16, and heated for 6 hr at 70.degree. to give cold H2O-sol. hydroxypropyl cellulose [9004-64-2] with .apprx.3 II residues per **anhydroglucose** unit.

IT **58450-11-6P**
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(manuf. of)

RN 58450-11-6 HCAPLUS
CN Cellulose, 2-hydroxypropyl 3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 15909-83-8
CMF C3 H8 O4 S



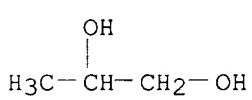
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 57-55-6
CMF C3 H8 O2



L63 ANSWER 49 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1975:100009 HCAPLUS
DOCUMENT NUMBER: 82:100009
TITLE: Nonaqueous process for reacting sultones with cellulosic materials
INVENTOR(S): Ward, Truman L.; Benerito, Ruth R.; Berni, Ralph J.
PATENT ASSIGNEE(S): United States Dept. of Agriculture
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3854868	A	19741217	US 1972-306770	19721115

AB Na cellulosate [9069-34-5], prepd. from a cotton printcloth by treatment with Na alkoxide in DMF, was washed with tert-butanol [75-65-0] and treated with propane sultone [1120-71-4] in tert-butanol at 25-75.degree. to give sulfopropyl cellulose [37325-18-1] with S content 1.8-3.08%. Other nonaq. solvents may be used, but the S content is lowered. The propane sultone soln. may be reused.

IT **37325-18-1P**
RL: **PREP (Preparation)**
(manuf. of, in tert-butanol)

RN 37325-18-1 HCAPLUS
CN Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
CMF C3 H8 O4 S
CCI IDS

$H_3C-CH_2-CH_2-OH$

D1—SO_3H

CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 50 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1973:420490 HCAPLUS
DOCUMENT NUMBER: 79:20490
TITLE: Production and characterization of **cellulose** 2-sulfoethyl **ether** sodium salt. I
AUTHOR(S): Dimov, K.; Simeonov, N.; Dimitrov, D.
CORPORATE SOURCE: Chem.-Technol. Inst., Sofia, Bulg.
SOURCE: Papier (Darmstadt) (1973), 27(4), 129-34
CODEN: PAERAY
DOCUMENT TYPE: Journal
LANGUAGE: German

AB The S content in **cellulose** 2-sulfoethyl **ether** Na salt (I) [39277-57-1] was affected little by reaction time at const. reaction temp. and was affected considerably by Na vinylsulfonate concn. and the type and amt. of **catalyst**. The optimal conditions for the prodn. of water-sol. I and ir spectra of I were given.

IT **39277-57-1P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)

RN 39277-57-1 HCAPLUS

CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

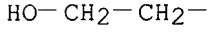
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S



L63 ANSWER 51 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1972:503561 HCAPLUS
DOCUMENT NUMBER: 77:103561
TITLE: Amphoteric cellulose
INVENTOR(S): Elizer, Lee H.
PATENT ASSIGNEE(S): Hubinger Co.
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3676423	A	19720711	US 1969-862051	19690929

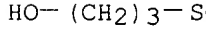
AB Amphoteric cellulose derivs., (YOSO2RO)mX[ORN(R1)2]n (R = C1-4 alkylene or hydroxyalkylene, R1 = C1-4 alkyl, Y = H,Na,K,Ca,NH4, X = cellulose, m,n = 0.15-3, m + n = <8 per 100 **anhydroglucose** units), with isoelec. pH 6.0-7.5 were prepd. by treating cellulose with a N-contg. etherifying agent and a reagent contg. a sulfonic radical. Thus, cellulose was treated sequentially with propane sultone in Me2CO, **aq.** 2-chloroethyldiethylamine hydrochloride, and **aq.** NaOH to give the amphoteric resin with isoelec. pH 6.0-6.5.

IT **37228-13-0P**
RL: PREP (Preparation)
(manuf. of, amphoteric)

RN 37228-13-0 HCAPLUS
CN Cellulose, 2-(diethylamino)ethyl 3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 15909-83-8
CMF C3 H8 O4 S



CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 100-37-8
CMF C6 H15 N O

$Et_2N-CH_2-CH_2-OH$

L63 ANSWER 52 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1972:450446 HCAPLUS
DOCUMENT NUMBER: 77:50446
TITLE: Microcrystalline sulfoethylcellulose
INVENTOR(S): Kuniak, Ludovit; Pastyr, Jan
SOURCE: Czech., 2 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 140983		19710415	CS 1969-622	19690131

AB Microcryst. crosslinked cellulose (1 kg) was treated in iso-PrOH with 1.1 l. 40% NaOH, suspended 1 hr, mixed with 1 kg 2-chloroethanesulfonic acid [18024-00-5] at 15-20.deg., heated slowly to 65-80.deg. for 0.5-2 hr, washed until neutral and dried to give the title compd. with exchange capacity 1-2 mequiv./g and 5-7% S. The above ratio cellulose-NaOH-ClCH2CH2SO3H was improtant for prevention of side reactions.

IT **9032-46-6P**
RL: **PREP (Preparation)**
(manuf. of microcryst.)

RN 9032-46-6 HCAPLUS
CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S